AFRP 85-1
SUMMER, 1984

Air Force Engineering & Services Quarterly

DESIGN EXCELLENCE

Air Force Wins Top Award, Pages 20-21.
First USAF Architectural Compatibility Award, Page 22.

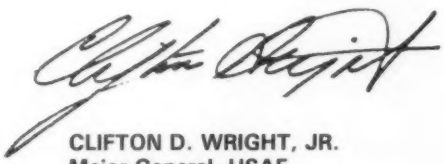
From the Director

As often as my schedule permits, I try to break away from my desk in the Pentagon and visit the major commands and bases around the Air Force. Inevitably I return home feeling better than when I left, for several reasons. First, such trips confirm that, contrary to the impression some people here in Washington have, the world really doesn't revolve around the Pentagon. Secondly, I enjoy the recognition I see our Civil Engineering and Services people getting for the tremendous job they're doing in wartime readiness as well as making the Air Force truly "a better way of life." Finally, I can't help but come back feeling proud of my association with the men and women who are making all this happen.

I recently returned from a quick trip through PACAF. In a period of only 10 days, I visited Yokota, Misawa, Kunsan, Osan, Kadena, Clark and Hickam and received briefings from our people at Suwon, Taegu and Kwanju. Invariably, each stop on my trip was too short to allow me time to do all the things I would like to do, particularly in terms of meeting people out there in the trenches who are really making the Air Force Engineering and Services tick. Still, I was able to see enough and hear enough to confirm what I already knew — we're doing our job better than ever before; the commanders in the field recognize that we're doing it better; and the quality of our airmen, NCOs, officers, and civilians is the best ever.

A visit to PACAF offers some pretty dramatic contrasts. From Yokota to Misawa is about an hour's flight, and about 35 years in terms of age and condition of the base facilities. From Hickam to Clark is about 18 hours difference on a clock, and about 6 to 9 months difference in lead time for delivery of materials to do our job. Bases such as Hickam, Kadena, Clark and Osan have tremendous numbers of TDY personnel, posing real problems for those who manage our food service and billeting activities. Yet, across the command, Civil Engineering and Services are meeting the problems head on and doing the job that needs to be done. When I visited General Jerome F. O'Malley, CINCPACAF, he expressed his appreciation and admiration for the job Civil Engineering and Services personnel throughout the command are doing.

The effort being put forth in PACAF is indicative of the efforts all across the Air Force by the men and women in the Engineering and Services family. Hard work, professionalism, and pride in ourselves and our mission are obvious across the board. As your advocate and spokesperson at Headquarters USAF, I will continue to do my best to provide you the resources you need to do your job. Together we can work the day-to-day miracles people have grown to expect —- and appreciate.



CLIFTON D. WRIGHT, JR.
Major General, USAF
Director, Engineering and Services

Design excellence -- more maintainable, efficient and attractive; easier to operate; longer lasting and in harmony with the environment; meeting the needs of defense today and tomorrow.

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- Attract highly qualified personnel to the Air Force Civil Engineering and Services career fields.
- Promote effective training, education, and retention.
- Communicate vital concepts, policies and practices which affect the wartime readiness of the United States Air Force.
- Promote professionalism, and devotion to duty.
- Stimulate planning for the wartime survival of our personnel, weapons systems and facilities.
- Develop Air Force stewardship of the well-being, quality of life and facilities support to Air Force personnel and their families throughout the world.
- Promote awareness of the efficient, effective and essential facilities needs of the Air Force.
- Transfer knowledge of Air Force Engineering and Services' technical and scientific achievements.
- Promulgate teamwork among the Air Force Engineering and Services' total force.
- Achieve a professional dialogue to enhance the thought, development and contributions of the Engineering and Services team worldwide.

The **Quarterly** editorial offices are at HQ Air Force Engineering and Services Center, Tyndall AFB, Fla. Contributions, suggestions and criticism are welcome. Opinions expressed do not necessarily reflect the official viewpoint of the Department of the Air Force, the Director of Engineering and Services or the editorial staff. Authority to publish this periodical automatically expires in January 1985 unless its continuance is authorized by the approving authority prior to that date. The use of a name of any specific commercial product, commodity or service in this publication does not imply endorsement by the Air Force.

THE AIR FORCE SPACE COMMAND: An Update

EDITOR'S NOTE: The following is based on an address by Gen. James V. Hartinger to the Air Force Engineering and Services Conference on Programming, Jan. 30, 1984, Peterson AFB, Colo.

Thank you for that introduction. I hope your day has been productive. As I said this morning, commanders count on engineers to provide the buildings to meet our operational demands and to provide a suitable work environment for our people. In every job I have had, my engineering staff has been great and my current group is no exception. I appreciate the work that Col. Duane Knutson does in transforming our needs into brick and mortar, and I know your bosses do too.

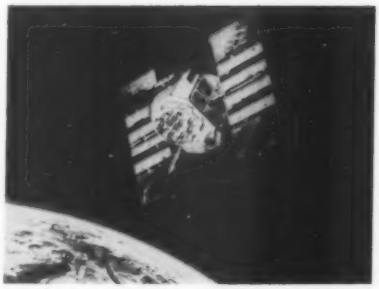
I see that earlier today you discussed subjects on the military construction program (MCP). Four major construction projects are planned for Space Command. The consolidated space operations center (CSOC), which is by far the largest; the test, development, and training center; and the Space Command headquarters, both to be built right here at Peterson; and, finally, the technical support facility which will be constructed near the parking lot right outside of Cheyenne Mountain.

I will talk about each one in a few minutes.

The MCP, of course, also includes dormitories, service clubs and support facilities — all critical construction projects that impact on the quality of life for our people. These projects are especially important in the Space Command. Many of our 22 worldwide space and missile warning sensors are in remote sites. That means the base is everything for our people, and we must ensure that our facilities are the best we can provide. For example, take Sondrestrom, one of our two bases in Greenland. Sondrestrom consists mostly of World War II buildings which we must replace. No economic analysis is required because if we don't replace them they'll fall down.

We are getting great support for our construction projects in Washington and I am grateful to General Wright and his people for their efforts.

Now, as I promised this morning, let



GLOBAL POSITIONING SYSTEM satellite, shown in artist's concept.

me tell you more about the Space Command.

On Sept. 1, 1982, we activated the Space Command, not to militarize space, but rather to preserve our right of self-defense and to deter space warfare. I think our motto depicts the spirit and determination our forefathers had: "Guardians of the high frontier."

Why did we establish a Space Command and why now? Our perception of space has changed. Space is a place — like the land, the sea, and the air — another dimension. And it was just a matter of time until we started treating it as such.

launch the interceptor, and we saw how well they did. Also, they are working on a large booster which could provide the thrust for a weapon to threaten our geostationary satellites by the end of the decade.

They have a solid ground-based electronic warfare system and their high-energy laser program is three to five times the level of effort in the U.S.

They also have a major manned space program. Their cosmonauts, since 1977, have logged well over 5 man-years in space, compared to our 242 man-days through the first 10 flights of the shuttle. Obviously, the Soviets recognize the potential

BALLISTIC MISSILE EARLY WARNING SYSTEM radar complex at Clear AFS, Alaska.

We had an ongoing study in the Air Force to determine when we would need an operational Space Command and several factors converged in 1982 which led to that decision.

The first reason is the Soviet threat. The Soviets have a major military space program. Over the past decade they have launched four to five times as many satellites as we have and 70 percent of their launches are strictly military. Last year they launched 74 military satellites and we launched eight.

They have the world's only space weapon, an orbital antisatellite (ASAT) system which they have demonstrated for years and which is a threat to our low orbiters. We watched them test it — we watched them launch the target, we watched them

military value of men in space for surveillance, target selection, repairs, and positive command and control. For these reasons, we had better get operational in space to protect our interests there.

The second reason for an operational command is our growing dependence on space systems. I can perform the missile warning mission only because I have the satellite early warning system. Our military weather satellites provide key data to all services. Over 70 percent of our long-haul communications are handled by satellites. And the global positioning system will let us navigate worldwide with unprecedented accuracy.

With this growing military dependence on space has come an ever-increasing national security resource commitment. Ten years ago, our military space budget was $2 billion. The FY 85 budget, currently being considered in Congress, is about $10 billion. With this resource commitment, it dictates the most effective management possible — which we can provide with an operational Space Command.

Another reason for having a Space Command is that when the shuttle provides routine access to space, it will require initiative, imagination and the proper organization — which the Space Command provides — to take full advantage of man's presence there.

Finally, as you know, President Reagan announced on July 4, 1982, at the landing of the fourth flight of the shuttle in California, that the most important goal of the U.S. space program was to strengthen national security. So, when we activated the Space Command for these reasons, we knew it would be a crucial milestone in the evolution of military space operations.

We knew activation of the Space Command would fit perfectly with the President's space policy, and with Secretary Weinberger's space policy implementation guidance provided to the Joint Chiefs of Staff to ensure space assets are supporting operational commanders. But, what we didn't know was that on Mar. 23, six months after we activated the Space Command, the President would announce his initiative to develop a defense against ballistic missiles.

For that reason and others, the timeliness for the Space Command activation was far greater than what we initially thought, and I'll tell you why.

First of all, the Air Force hasn't formed a major air command like this since 1950. We've had a hundred balls in the air — we've had to keep them all up there. Now, ticking off the major milestones that we've met this year:

- On Sept. 1, 1982, we activated the Space Command.
- On Oct. 1, 1982, the Air Force activated the Space Technology Center at Albuquerque, N.M. — having the geophysics, rocket propulsion, and the weapons labs. The center is responsible for the unique space technical disciplines and it reports to Air Force Systems Command's Space

Division in Los Angeles. So, from our perspective, we now have an efficient cradle-to-grave autonomy: from basic technology at Albuquerque; to research, development, acquisition and on-orbit check-out by Space Division; to on-orbit control, management and protection by the operational Space Command.

• On Jan. 1, 1983, we activated the 1st Space Wing at Peterson AFB. Why did we do it? It's simple. SAC puts bombers in their wings, TAC puts fighters in their wings and in the Space Command, we put our space sensors and systems in our wing — and that's our first wing — first in name and first in chronology.

• Also, on Jan. 1, we activated the Space Communications Division that supports both NORAD and the Space Command.

• On April 1, 1983, the Air Force Chief of Staff, Gen. Gabriel, designated the Space Command as the operational manager for the Milstar satellite program. Milstar is a jam-resistant system which, when operational, will provide the primary means for the President to direct strategic and tactical forces.

• On May I, we took over all of the worldwide space and missile warning sensors from SAC plus three bases: Peterson AFB, and Thule and Sondrestrom Air Bases in Greenland; and, four Air Force Stations: Clear AFS, Alaska; Cape Cod AFS, Me.; Cavalier AFS, N.D.; and Falcon AFS, Colo.

• Plus, on May 1, we also acquired two important operational satellite systems: the satellite early warning system — the infrared system which, as CinCNORAD, I must have for detecting space and missile launches; and the Defense Meteorological Satellite Program (DMSP), which is the DOD weather satellite system.

We completed all of these transfer actions 5 months ahead of schedule. In addition to these milestones, here are some more recent achievements.

On May 17, 1983, we broke ground for the Consolidated Space Operations Center being built 9 miles out of Peterson AFB. Construction is expected to take 2½ years. Site preparation, which involves laying in the utilities, will be complete in the Spring. It was 90 percent finished when the contractor (Schmitt-Tiago) quit for the winter. The contract for the above-ground construction, which was to begin in the spring of 1984, was awarded to Bechtel National, Inc., of San Francisco.

CSOC will be the centerpiece for military space operations and will be the key element for the Space Command to provide consolidated management of space systems. It will be the place to bed down new satellite systems such as Milstar, the Global Positioning System, and the Defense Satellite Communications System (DSCS) III. It is also where we'll manage military space flight into the next century.

CSOC is a two-part facility. One side will be a satellite control center which will be a duplicate and interoperable with the satellite control facility at Sunnyvale, Calif. — and the other side will be a shuttle control center which will functionally replicate the Johnson Space Center at Houston, Texas.

We should have satellite control capability in 1986, and a shuttle planning and control capability by the late 1980s.

In early June 1983, the Commander-in-chief of Strategic Air Command (CINCSAC), General Davis, agreed to the transfer of the global positioning system (GPS) from SAC to the Space Command. GPS represents an extraordinary navigational capability which will greatly improve the effectiveness of all our forces

Also in early June. General Gabriel submitted a proposal for a unified space command to the Chairman, General Vessey, and to the other service chiefs. The concept of a unified command was in the Air Forces' original announcement a year ago when General Gabriel said that an Air Force Space Command was just the first step. The second evolutionary step is a unified command with Army, Navy and Marine Corps participation. The proposal is currently being considered by the joint staff. Since it takes at least two service components to meet the definition of a unified command — we are pleased that the Navy formed its Space Command at Dahlgren, Virginia, on Oct. 1, 1983. We anticipate the Army will have a service component too.

On June 9, 1983 we picked an im-

Gen. Alkire Attends Space Launch Complex Dedication

Headquarters Air Force Engineering and Services was represented at the christening of the space launch facility at Vandenberg AFB, Calif., by Brig. Gen. M. Gary Alkire, deputy director.

The christening marked the completion of the $3 billion construction program. The complex will now be readied for launching the space shuttle in October of 1985.

It marks the first time that manned space launches will be conducted on the west coast of the United States. It also opens the polar shuttle routes to complement the equatorial path emanating from the Cape Canaveral launch complex.

Throughout the development of the facility, the teamwork between the participating agencies has been cited for excellence: the Air Force Western Regional Civil Engineering office, the Army Corps of Engineers, the National Aeronautics and Space Administration, and the contractor support community.

Dedication of the Vandenberg complex marks the growing importance of space systems for the Department of Defense, according to Undersecretary of the Air Force, Edward C. Aldridge Jr. "This space complex is a major milestone in the Air Force contribution to the national space transportation system, and indeed, our total space effort," he said.

"Today, space plays an essential role in our country's continuing quest for freedom," said Lt. Gen. Forrest S. McCartney, commander of the Air Force Systems Command's Space Division.

Four flights annually are planned from the facility, beginning with the launch of the space shuttle Discovery next year. Many missions planned for the Vandenberg launch complex are purely for the Department of Defense.

portant additional shuttle support task. Air Force Systems Command has been providing contingency support for the first seven shuttle flights and we have been providing collision-avoidance information to NASA, keeping a precise position on the orbiter in case of a contingency and predicting and confirming where the external tank lands in the Indian Ocean.

Now the Secretary of Defense has transferred the responsibiliity to the operational Space Command as the DOD manager for space transportation system (STS) contingency support operations — it fits. What this means is the Space Command will execute support plans to respond to shuttle contingencies — such as an unscheduled landing at one of the worldwide recovery bases like Kadena in Okinawa, Rota in Spain, or White Sands, New Mexico. During a shuttle contingency, the Space Command will control certain designated DOD activities. A staff of 20 people at Patrick, Vandenberg and Houston, dedicated to STS contingency support, has been transferred from AFSC to the Space Command.

The 4th Weather Wing was established at Peterson AFB on Oct. 1, 1983. The new wing brings together 21 units worldwide, with about 300 people managed by a staff of 30 personnel in Colorado Springs. It consolidates the worldwide solar observing facilities and provides the full range of weather services to the space command.

So, these have been the key milestones in our first year, but there has also been beneficial fallout in a number of other areas during this year just because we have a space command.

For example, we've been pushing for a comprehensive documentation of the Soviet space threat. We want to see space given the same emphasis as the air, ground, and naval threats. Everyone is giving a lot more attention to the space threat than ever before.

We're also developing strategic doctrine involving space. We're involved in answering questions like: What should be the on-orbit force structure? What kind of space programs should we have? What should be the launch/vehicle mix? These questions haven't been addressed before because there hasn't been an operational commander in space.

We are providing the operational pull to go along with the technology push which has been the dominant factor in the space world since its inception.

To develop strategy, an important task is to realistically incorporate space assets in exercises in March 1982, we did that for the first time in a JCS-sponsored exercise. Since then, we've had two other major exercises that have included space play. They

24 May 1984

OPEN LETTER TO AIR FORCE ENGINEERING & SERVICES OFFICERS, NCOs & CIVILIANS

During the last several years, many of you have actively contributed to our nation's and the U.S. Air Force's emerging role in space through your participation in the planning, design or construction of the facilities at Vandenberg Air Force Base that will support Space Shuttle launches. The President has designated this a vital national program supporting extremely important space initiatives.

On 14 May 1984, I was privileged to represent you at Vandenberg as Under Secretary of the Air Force Edward C. Aldridge dedicated the newly constructed shuttle launch complex. This auspicious ceremony was held to honor those who participated in all facets of this monumentous achievement.

Each of you, as well as the entire Air Force Engineering and Services community, is to be commended for your role in making possible the first launch of the Space Shuttle from Vandenberg Air Force Base in October 1985.

M Gary Aikire

M GARY AIKIRE
Brigadier General, USAF
Deputy Director of Engineering
and Services

have been successful exercises because they pointed out areas for improvement in our operational space planning. We have operations plans for land, sea and air contingencies, and now we're tying together space activities. The Space Command is making a major contribution by developing realistic space scenarios.

Satellite positioning is another concern. There is no single point within DOD for coordinating satellite positioning and some of our orbits are getting crowded — for example there are a lot of satellites in geosynchronous equatorial orbit. The Space Command is now looking at current procedures for satellite positioning.

Survivability is an area where the operational commander is making a big impact. Today, our space systems are recognized by operational commanders as a peacetime capability. We just finished Phase I of an Air Staff-sponsored study called "Space Systems Architecture — to the Year 2000." The initial phase developed a sound survivability strategy. As the operational advocate we will see that survivability features are not dropped from the space systems — so that they will be there in times of crisis and conflict.

Our command surgeon is already in business. He's been involved in establishing an executive structure to develop a program for medical support to the shuttle. He's also working with NASA to determine the effects of solar radiation, zero-Gs, and extravehicular activity. Our goal is to establish an operational medical support program tailored to unique military needs. For example, astronauts have been experiencing myopia, so we sponsored a visual acuity experiment on STS-8. Beginning with STS-14, NASA will fly a handheld electronic vision tester on several shuttle flights. So, the Space Command is providing the operational advocacy for reseach efforts to understand the space environment and for the design improvements to increase man's utility in space.

Space education is another challenge — it could be our weakest link. The Air Force Academy is now offering courses leading to a space major — an interdisciplinary curriculum with courses in physics, electrical and mechanical engineering, aeronautics, astronautics and computer sciences. The Academy will offer graduates a bachelor of science degree in Space Sciences for the first time in 1985.

The degree at the Academy is just the first big step — for not only other service academies, but civilian institutions as well. Several universities have expressed strong interest in offering space-related courses — they want the ingredients for a space major. We are now canvassing colleges and universities to see what is being currently offered — and how their programs might be tailored toward a space degree similar to the one projected at the Academy.

The Air Force Institute of Technology already offers a master's degree in Space Operations Management at Wright-Patterson AFB. We've graduated two classes so far and 25 students who will graduate in December 1984. We are promoting a much larger enrollment to meet our future needs.

We've consolidated all space operations training in Colorado — basic technical training at Lowry AFB and specific training for Cheyenne Mountain and all sensor sites at Peterson AFB.

We're giving more attention to space in our professional military schools. The Air War College has expanded its space curriculum from 6 hours to 35 hours, and the Air Command and Staff College now offers a 4-week space operations staff course.

The academic world is excited and enthused about going into space — that's where the future is.

In addition to the CSOC, three other major construction projects are planned.

We plan to build the Space Command headquarters building at Peterson AFB. Construction starts in the spring of 1985. We plan to move out of the Chidlaw building into this new facility in the spring of 1987. This building will be 250,000 square feet and will house 1,500 people.

To meet the command's test and training needs, we also plan to build a test, development, and training center (TDTC) on Peterson AFB just across the street from the Space Command headquarters. At this center, we will perform software and hardware testing and maintenance and operational training support of both the NORAD Cheyenne Mountain complex and the Space Command. Construction is scheduled to be completed by July 31, 1985.

The third construction project is the technical support facility. The facility will house some of Cheyenne Mountain's administrative and support functions, thus making 25,000 square feet available within the mountain for computer space. The two-story, 34,000-square-foot building will be located on the southwest side of the parking lot outside the mountain. Construction will begin in the summer of 1984 and be completed by Nov. 30, 1985.

I could go on, but now I want to tell you about three actions that we took by timely coincidence, prior to the President's talk on his strategic defense initiative. These are actions which are the most important beneficial fallout of having a Space Command and which have turned out to be integral to the President's initiative.

The first thing was when the Air Force activated the Space Technology Center at Kirtland AFB at Albuquerque. We realized the uniqueness of space systems and the requirement for a close tie between the technologist, the developer and the operator. We've also established a Space Command Operating Location — at Space Division in Los Angeles — to help the coordination process at that end. In addition, we have continuous staff exchange visits between our headquarters and we have started an Intercommand Assignment Program to provide an exchange of space people. Our objective is to establish a relationship between the Space Command and the AFSC Space Division that will define where one starts and the other stops. I think if we hadn't activated a Space Command and Space Technology Center before the President's speech, we'd have to do it now.

The next thing we did was refine a statement of operational need for a strategic defense system. We did that in January — two months before the President's speech. We brought together the operational and technology worlds to review the current state of technology in directed energy systems. We had to look at a dozen technology options that might be needed in

responding to the President's challenge for a strategic defense system. We looked at many areas — not just in the weapons development area, but also target acquisition, tracking, fire control, and command and control technologies.

The technology is now moving ahead very fast. The Joint Appropriations Conference recently approved $46 million in 1984 for a new Air Force program called Strategic Laser Systems. The money will be used to develop a short wavelength ground-based laser and to continue work on the space-based laser applications. Together with DARPA money, about $290 million will be spent on ground- and space-based laser research this year.

The third timely coincidence was a Comprehensive Strategic Defense Study sponsored by OSD called the Strategic Defense Architecture (again to the year 2000). It includes all three defense missions: air defense, space defense, and missile defense. I am the study director and the study includes all the major players in the strategic defense business. We have just finished Phase 1 on atmospheric defense which zeroes in pretty well on the Soviet cruise missile threat. Phase II covers missile defense and space defense — the timing couldn't be better with the President's call to study the possibilities for a more defense-oriented strategy. Our strategic defense architecture study group is the perfect vehicle to take the National Security Council's strategy and technology objectives and develop them programmatically to the end of the century. If we didn't have an SDA 2000 joint service study underway we would have to create one.

Those actions were of timely coincidence in responding to the President's initiative — but we need an organization to lead these efforts and we think it should be a unified command.

Before concluding, I want to say a few more words on a unified command for space. I believe we need a unified space command for many reasons.

By definition, space systems must be integrated into the national defense structure — exactly like naval forces, land forces and air forces are integrated today. Our national security

Gen. James V. Hartinger was the first Commander of the USAF Space Command (SPACECMD) and Commander in Chief of the North American Air Defense Command (NORAD), with headquarters at Peterson AFB, Colorado Springs, Colo. He retired Aug. 1. Drafted into the Army in 1943, he attained the rank of sergeant while serving in the Infantry. Following WWII, he entered West Point, and was commissioned a second Lieutenant in 1949 in the U.S. Air Force. He received his wings at Williams AFB, Ariz., in 1950, and has been a career-long fighter pilot. Assignments include flying F-84s in the Korean War; a tour in the Pentagon; flying F-4s in Vietnam; F-111 test director; commander of the famed F-105 "Flying Tigers;" commandant of the Air War College; and commander of the Tactical Air Command's 9th and 12th Air Forces. He became CINCNORAD on Jan. 1, 1980, and commander, HQ Space Command on Sept. 1, 1982. The new commander is Gen. Robert T. Herres, formerly director for Command, Control and Communications Systems, office of the Joint Chiefs of Staff, Washington.

space expenditures are about $10 billion annually (and growing) and yet only one system — the satellite early warning system — is formally tied into the warfighting structure.

All services depend upon space systems. Advances in technology have made the benefits available to every fighting level — ships, squadrons and battalions. Space systems can significantly influence the outcome of hostilities on earth by their support of our terrestrial forces.

OSD recognized this and initiated a study of the integration of DOD space assets into the overall military force structure. The Air Force also recognized this and called for the establishment of a unified command in the initial Space Command announcement in June 1982. So, I think the operational need for the establishment of a joint service command was there before the President's initiative — Now, I think it has become even more important.

If the decision to establish a unified command for space is made, I believe it will have the potential to provide the operational focus to those directed energy development programs and to eliminate fragmentation and duplication in responding to President Reagan's goal of a space program to strengthen national security.

In conclusion, it is clear that space is the place for the future. In responding to President Reagan's initiative for a strategic defense against ballistic missiles, space systems could alter the basic premise of our national strategy by providing a viable option for bringing defense back into the game.

As the commander responsible for stragetic defense, and as commander of the Space Command , I feel the future offers tremendous opportunities and challenges. You can see the ball is going to be in your court.

From what I've told you I'm sure it is clear that the Space Command has been busy climbing hills, but I'm sure it is equally clear that this is only the beginning — We've got a long way to go if we are to be the "guardians of the high frontier."

Directorate of Engineering and Services

Current Emphasis

READINESS AS DIRECT LABOR –

Classifying readiness training as indirect labor penalizes BCEs for carrying out this important part of their mission. By December, HQ Air Force Data Systems Design Office (AFDSDO/PREF) will issue a direct labor utilization code (LUC) in AFM 171-200, separating readiness training from other BCE activities. This will make it possible for BCEs to properly identify readiness training as direct labor under BEAMS. (HQ AFESC/DEMG, SMSgt. Redmiles, AUTOVON 970-6388)

INTERIOR RENOVATION POLICY CLARIFIED –

All work associated with projects which "change the use" of all or part of a facility is classified as minor construction, even if repair or maintenance would be required anyway. An example is a function with a different three-digit category code relocated within or between facilities. Exceptions to this are exterior items of repair which may be accomplished simultaneously and which are properly classified as repair. All interior renovation work necessary for a facility or area to continue in its present use (including retaining the same three-digit category code) is classified as maintenance and/or repair. Reconfiguring interior areas as part of this work is also classified as repair. Exceptions to this which remain classified as minor construction are relocations of load-bearing walls, columns, beams, etc., and relocations of special purpose spaces. (HQ USAF/LEEPD, Maj. Williams, AUTOVON 227-8957)

AFR 86-1, VOL. II,

published in May, supersedes AFR 86-1, Ch. 11, dated Aug. 6, 1976. The new volume establishes policies, procedures and responsibilities for programming nonappropriated fund (NAF) facilities. It provides step-by-step guidance on how to program and submit projects for approval. (HQ USAF/LEEPD, Maj. Williams, AUTOVON 227-8957)

FIRE REPORTING –

A new fire reporting system started July 1 throughout the Department of Defense. It replaces the USAF Fire Incident Report (DD Form 278) and Fire Protection Activities Report (AF Form 1528). DoD Instruction 6055.7-M, ***Fire Incident Reporting Manual***, and AFR 92-1 (Change 2) spell out the USAF procedures to be used by our fire departments when reporting fire incidents and activities. (AFESC/DEF, Maj. Ray, 970-6154).

BASE CIVIL ENGINEERING OPERATIONS BRANCH REORGANIZATION –

The Operations Branch reorganization was approved May 18. Air Force-wide implementation is scheduled to be completed by October 1. The following changes have been approved for implementation:

- Establishment of a Readiness Management function as a separate organizational entity.
- Separation of Resource and Requirements into Requirements and Logistics. Option: Requirements and Logistics may be combined as Requirements and Logistics if squadron size is under approximately 300 personnel and/or materials dollars are under approximately $2.5 million annually.
- Establishment of a Facility Manager function. MAJCOMs may elect to use a Facility Manager in lieu of a Deputy Chief of Operations. The responsibilities of the Deputy Chief of Operations and the Facility Manager are combined in AFMS 4430. At large bases, where Operations Branches exceed 679 personnel, the establishment of both a Facility Manager and a Deputy Chief of Operations is authorized.
- Establishment of a Quality Assistance function is a local option. Manning for this position must be a realignment of existing authorizations.
- Establishment of a Sanitation Superintendent (Functional Account Code 4490) is not required where water and sewage plant operations are performed by other than BCE in-house forces. When this occurs, the Water and Waste function will be assigned to the Structures Superintendent, and the Engineering Entomology function will be assigned to the Pavement and Grounds Superintendent. (HQ AFESC/DEMG, SMSgt. Redmiles, AUTOVON 970-6388)

PREWIRING –

Air Force policy as outlined in a new chapter of AFM 88-15 now permits prewiring as a part of the basic project design and construction. All new buildings and major renovations are included, but family housing is excluded. Prewiring includes all necessary wiring and cable support; wiring installed for information services (voice, data, facsimile, and video), and support for energy monitoring and control, alarms, and sensors. (AF/LEEEU, Mr. Worden, AUTOVON 297-4082)

INDUSTRIAL ENGINEERING TECHNIQUES HANDBOOK –

The new ***IE Techniques Handbook*** (AFP 85-6), dated June, is available. A significant departure from previous Air Force IE documentation, it is a guide for application of IE techniques tailored specifically to the Base Civil Engineering (BCE) operation, featuring simplicity, basic illustrations and bold type. This guide includes an introduction to the BCE suggesting how to use IE resources most effectively and how the IE should operate and support the BCE for maximum productivity. The nine chapters include:

- Conducting a Successful IE Study
- Work Measurement
- Methods Analysis
- Sampling
- Trend Analysis
- Critical Path Method (CPM)
- Queing
- Economic analysis
- Layout

Each chapter provides a simple explanation of selected techniques most appropriate for application within Civil Engineering. This is followed by illustrated applications of these techniques and case studies of subjects and problems frequently encountered in civil engineering. (HQ AFESC/DEMG , Mr. Gray, AUTOVON 970-6378)

SELECTED FAMILY HOUSING IMPROVEMENT PROGRAM –

A comprehensive program has been established to identify housing units for upgrading, modernizing, replacing or razing. One purpose is to identify housing with prominent historical background, notable architectural style, and/or designation as general officer quarters. The Air Staff is currently reviewing the list of units submitted by MAJCOMs to determine which units will be included. (HQ USAF/LEEHR, Mr. Parker, AUTOVON 225-6589)

REGULATIONS, NEW AND REVISED –

A revised regulation, ***Granting Temporary Use of Real Property*** (AFR 87-3), was issued in April, replacing the old AFR 87-3. The new regulation:

- Expands and clarifies policies and procedures for granting temporary use of real property;
- Restructures the sections in a more uniform order; and
- Updates terms, office symbols and levels of approval authority.

A new regulation, ***Mineral Exploration and Extraction on Air Force Lands*** (AFR 87-9), was also issued in April. It establishes policies and procedures for granting temporary use of Air Force real property for mineral exploration and extraction. It implements Department of Defense Directive 4700.3, dated Sept. 28, 1983, and is a companion regulation to AFR 87-3. (HQ USAF/LEERA, Mr. Jonkers, AUTOVON 297-4031/4033)

SHARED SAVINGS PROJECT PILOT PROGRAM –

The Air Force is participating in a joint services effort to determine the applicability of Shared Savings Projects to defense facilities. In concept, a private-sector contractor would make an agreed-upon change to an Air Force base building to save energy (e.g., install high efficiency air conditioners). The contractor pays for all materials, labor, and maintenance over the life of the agreement. In consideration, a portion of the monthly utility bill savings over the previous method used is shared by the Air Force base with the contractor for a specified term. (HQ AFESC/DEB, Mr. Beason, AUTOVON 970-6461)

ROOFS –

The master specification in AFM 91-36, Built-Up Roofing Management Program, should be used for the construction of all built-up roofs for the Air Force. The Army Corps of Engineers and the Naval Facilities Engineering Command have assured the Air Force that they will implement AFM 91-36 on projects for which they are the design agents. You need to ensure implementation on all other construction, maintenance, and repair projects. (HQ USAF/LEEE, Mr. Spangler, AUTOVON 297-4260, HQ AFESC/DEMM, Mr. Marien, AUTOVON 970-6358)

ASBESTOS IN AIR FORCE FACILITIES –

The Air Force policy for all facilities on use of building materials containing asbestos has been issued. We are now developing an asbestos control program. The program will include locating asbestos in our facilities, determining which of these present a current or future hazard, and formulating a multiyear program to deal with asbestos. (HQ AFESC/DEMM, Mr. Reeve, AUTOVON 970-6346)

COAL –

Workshops and government/industry meetings are being held to improve our handling and testing of coal, a fuel with increasing use in base central heating plants. State-of-the-art methods and proven industry approaches are being studied. Emphasis is first being placed on coatings for freeze-proofing, dust control, pile covers, retarding spontaneous combustion, and streamlining coal sampling and analyses. (HQ AFESC/DEMM, Mr. McDonald, AUTOVON 970-6363)

AIR INFILTRATION REDUCTION (HOUSE DOCTOR) IN FAMILY HOUSING –

A $21 million, 49-base package of House Doctor projects, put together by HQ AFESC/DEB, was approved by the Deputy Assistant Secretary of the Air Force for Installations, Environment and Safety. Initial funding will be $4.3 million, with the remaining requirement to be completed by FY 88. These projects will help to meet the energy reduction goals in Family Housing for both FY 85 (20 percent) and FY 90 (30 percent). (HQ AFESC/DEB, Lt. Jager, AUTOVON 970-6454)

FY 85 FACILITY ENERGY CONSERVATION GOAL –

Air Force energy conservation performance to date demonstrates that additional conservation effort will be required through the end of FY 85 to achieve the 20 percent facility energy reduction goal established by Executive Order 12003. The MAJCOMs updated their energy plans in May 1984, identifying the specific programs needed. O&M, management, and energy awareness programs must be strengthened, stressing:

- AFR 18-1 policy;
- capitalizing on fast pay-back O&M projects;
- accelerating HVAC energy efficiency programs; and
- changing attitudes of energy users.

(AFESC/DEB, Maj. Odom, AUTOVON 970-6462)

PROJECT IMAGE CHARTER WORKSHOP –

Project IMAGE means "innovative management achieves greater effectiveness." The Project IMAGE charter workshop was conducted at Panama City Beach, Fla., May 15-23, drawing upon highly experienced BCE personnel to "blueprint" the BCE function into the 1990s. They established the road map for follow-on IMAGE functional workshops and initiated development of BCE productivity measurement indicators. Over 150 specific recommendations for BCE improvement were developed in 18 main target areas including organization, personnel, training, vehicles and equipment. These recommendations will result in near-term and long-term actions to test and implement. Many IMAGE workshop recommendations are related to removal of constraints adversely affecting BCE productivity. This constraint removal process will require considerable coordination with the controlling activities to make the required changes. A detailed update on IMAGE will appear in a future ***E&S Quarterly*** article. (HQ AFESC/DEMG, Maj. Coullahan, AUTOVON 970-6387)

COMPUTER TERMINAL

SIMS CURRENT STATUS –

- FUNDING – The Services Information Management System (SIMS) program was fully funded by Engineering and Services during the FY 86 POM review.
- AF-WIDE ACQUISITION – Final review of the WIMS/SIMS specification is scheduled for late August. A Request for Proposal (RFP) will be released to vendors in September. Contract award is projected for June 1985, with first system installation in October 1985.
- PROTOTYPE – Sole-source approval to lease a Wang minicomputer for Davis-Monthan AFB was received from the Acting Assistant Secretary of the Air Force for Financial Management in June. Hardware acquisition went to HQ TAC Contracting on July 31. System delivery is projected for December 1984. (HQ AFESC/AD, Capt. Cox, AUTOVON 970-6205)

WORK INFORMATION MANAGEMENT SYSTEM (WIMS) –

- Prototyping and testing of the WIMS system concept are continuing. Twenty-eight systems are operational, including a full system at Tinker (all branches, 71 terminals). Portions of WIMS are now working well at Wright-Patterson AFB, McClellan AFB, Edwards AFB and the Air Force Academy.
- The request for proposals (RFP) for purchase acquisitions of full systems (approximately 60 terminals each) for each BCE is expected to be released in early fall. Systems should start arriving in the field by the end of 1985 and should be installed worldwide 3 years later.

INTEGRATED GRAPHICS SYSTEMS (IGS) –

Implementation of computer graphics within Engineering and Services came one step closer recently. The IGS program received top-level FY 87 funding support during the last POM budget cycle. This program will provide Computer and Design and Drafting (CADD) and comprehensive planning support within Engineering and Services. In addition, the test project at SARPMA entered into the final phase of contract award. Later this summer we should have a major graphics installation operational.

(HQ AFESC/AD, Maj. Hamill, AUTOVON 970-6437)

CIVIL ENGINEERING MATERIAL ACQUISITION SYSTEM (CEMAS)

continues to be tested at Tinker AFB. Initial indications show material response time better than any support system used today. We now can manage the total inventory through the ability to automate bills of materials, document all transactions, and automatically issue residue assets when requirements are submitted. This ability has greatly increased responsiveness and enables management to deter fraud, waste and abuse. Interface with base supply and the new contracting system (BCAS), now in prototype development, is being performed by the Data Systems Design Office (DSDO) with program monitorship by HQ AFESC/DEMG. The second test location will be announced when necessary Air Staff approvals are obtained by this joint HQ USAF/LEE/LEY/RDC project. The project officers visited PACAF in June 1984 to study overseas application of CEMAS. Training requirements, documentation requirements, and other program requirements are being supported through the MAJCOM in a working group concept. The HQ Air Force Logistics Management Center (AFLMC) LGS is providing a stockage and reorder program to ensure that CEMAS possesses the most responsive and efficient stockage capability possible. (HQ AFESC/DEMG, Lt. Col. Wadlington, AUTOVON 970-6386)

WARTIME PLANNING GUIDANCE –

The 1984 revision of the ***USAF War and Mobilization Plan,*** Vol. 1 (WMP-1) was recently published, providing a single source of current doctrine, policies, and guidance concerning the support of all conditions of warfare. Annex S delineates broad policies and planning guidance for Engineering and Services combat support. WMP-1 is an essential source of information for all offices performing wartime or contingency planning, to include accomplishment of annual Wartime Manpower Planning (MANREQ) and Support Force Sizing (FORSIZE) exercises. All MAJCOMs are on distribution for WMP-1, which is classified SECRET. Annex S is unclassified. (HQ AFESC/DEOP, Maj. Bittner, AUTOVON 970-6738)

USCENTAF FOL TDY WITH SHORT TOUR CREDIT –

Prime BEEF/RIBS personnel are needed to support a USCENTAF forward operating location for a 179-day TDY. In addition to obtaining valuable contingency experience, individuals selected and completing the TDY are awarded short-tour credit and a new short-tour return date. Prime BEEF/RIBS specialty requirements include electrical, fire protection, structural, environmental, refrigeration, equipment, and food services, plus both a civil engineering officer and a food services officer. (HQ AFESC/DEO, TSgt. Black, AUTOVON 970-6744)

NUCLEAR POWER –

A joint program plan is being developed with the Department of Energy for determining the feasibility of using small-scale reactors to provide secure energy to critical facilities. For handling any and all inquiries on this subject, Air Force personnel are reminded to refer for guidance to SAF/PAM message 212100Z Feb 84 to ALMAJCOM-SOA/PA/DE/XO/LG. (HQ AFESC/DEB, Mr. Hathaway, AUTOVON 970-6466)

RELOCATION OF AIR FORCE MORTUARY AFFAIRS –

The Air Force Mortuary Affairs office moved from Randolph AFB, Tex. to Tyndall AFB, Fla., in July. Mail should be addressed to HQ AFESC/DEHM, Tyndall AFB, Fla. 32403. The new AUTOVON phone number is 970-6757. Toll free commercial calls by next-of-kin may be made to 800-531-5803. (HQ AFESC/DEHM, Mr. Nester, AUTOVON 970-6756)

CAREER CORNER

THE ENGINEERING AND SERVICES CIVILIAN CAREER MANAGEMENT PROGRAM (ESCCMP)

team completed another step in program development when copies of master development plans (MDRs) and career patterns were forwarded April 11 to all MAJCOMs and CCPOs, MAJCOM/DEs, base-level BCEs and SVs. These are the tools which are to used by each career registrant to develop their individual development plan (IDP). AF forms 2674 (life career patterns) show the reassignment and promotional opportunities in each career field. From this, the careerist determines the course of career progression. The MDPs provide an illustration of what jobs, training and education experiences are desirable for career advancement. Career goals, training, education and developmental assignments are then determined and agreed upon by both employee and supervisor through completion of the IDP. More information on this subject will be contained in the ***ESCMMP Career Guide***, now being written. However, each career employee is encouraged to review the MDPs and career patterns and begin action on their IDPs. (OCPO/MPKCE, Mr. Johnson, AUTOVON 487-6843/6388)

MOBILITY AND CAREER-MINDEDNESS ARE RELATED –

Progression in grade and responsibilities, means gaining work experience in more than one location and with more than one organization. The depth and breadth of experience earned by working in a variety of positions are factors which can make a given person the best qualified candidate for a vacancy. An employee remaining in one position year after year for the comfort of not having to go will not receive the same progressive benefits as other employees who are available for reassignment to fulfill Air Force mission needs. People aspiring to a career in family housing or billeting must certainly be ready to move to where the opportunities are located. Accepting an assignment to a location less desirable than others may be a must to gain experience and broaden skills and knowledge. Remaining mobile insures continued progressive moves. Several GS-9 billeting officer positions recently were filled locally due to a lack of career program candidates. Only one name was available for consideration in one case, and only a few names available for a MAJCOM GS-12 housing position in another. (OCPO/MPKCE, Mr. Hogan, AUTOVON 487-6843/6388)

AF PAYS FOR CIVILIAN PROFESSIONAL REGISTRATION TRAINING –

The Air Force will pay for refresher courses taken by civilian employees in preparation for the licensing examination and the examination fee for architects and engineers. Funds are available through the education program administered by local CBPOs. The training must appear on the employees Individual Development Plan. In the event funds are not available through personnel training offices, some are available specifically for this training through OCPO/MPKCE, Randolph AFB, Tex. Training programs for military people will be covered separately. (AF/LEEES, Mr. Smith, AUTOVON 297-4250)

Traveling Worldwide

Editor's Note: The following article discusses some of the intercommand E&S deployments with which the AFESC Directorate of Readiness has been involved. It does not address the many successful deployments that are conducted each year by many of the MAJCOMs, using their own mobile forces.

by Capt. Fred Eng

Interested in traveling? Worldwide? If so, and you are a member of a Prime BEEF (Base Engineer Emergency Force) or Prime RIBS (Readiness In Base Services) team, that opportunity could become reality. Prime BEEF and Prime RIBS teams were established to meet our wartime engineering and services requirements, however, they also have an important peacetime role — providing mobile forces to support a mission deployment.

When a MAJCOM deploys organic Prime BEEF/RIBS resources within the command to fulfill a command project, exercise, or contingency requirement, the deployment is recognized as an intracommand deployment. MAJCOMs are delegated authority to deploy their active duty mobile Prime BEEF/RIBS forces for up to 90 days. When such deployments exceed 90 days, MAJCOMs must obtain Headquarters Air Force Engineering and Services Center approval.

An intercommand deployment represents a request by a MAJCOM for Prime BEEF/RIBS assistance from other MAJCOMs because the requester is unable to satisfy added mission requirements with its own Prime BEEF/RIBS forces, or it may represent support resources needed to accomplish a Headquarters USAF Contingency Support Staff (CSS)-directed mission. There are three basic categories of intercommand deployments: Joint Chiefs of Staff (JCS)/MAJCOM-sponsored exercises, or HQ USAF Contingency Support Staff (CSS)-directed operations; intercommand emergency assistance or disaster recovery; and support of special project requirements.

The Directorate of Readiness (DEO) at HQ AFESC, is the functional manager for the Prime BEEF and Prime RIBS programs, and the focal point of contact for MAJCOMs requesting intercommand assistance. Further, they review and validate requests for intercommand Prime BEEF and RIBS support, identify/direct appropriate MAJCOMs for necessary personnel and support equipment, and monitor the status of deployed forces. In some cases, RED HORSE (Rapid Engineer Deployable, Heavy Operational Repair Squadron, Engineer) personnel are selected for deployment because of their unique capabilities.

In FY 83, 13 intercommand deployments were supported. Supporting MAJCOMs deployed 261 Prime BEEF, 133 Prime RIBS, and 17 RED HORSE members. The variation in size and scope can be from the "very large" to small deployments of single teams. On the large end of the scale, Exercise Team Spirit is annually conducted during the February-March time frame to test the ability of the United States to reinforce its forces in the Republic of Korea (ROK) in combined operations with ROK forces. In 1983, 112 Prime BEEF and 81 Prime RIBS personnel were deployed to augment in-place Pacific Air Forces' RED HORSE, base civil engineering, and services units to provide force beddown and operations and maintenance support. These personnel were deployed for 50 days.

Exercise Ahuas Tara, a modest deployment effort, supports a United States/Southern Command-sponsored exercise held in Honduras, Central America. It consists of a series of individually distinct exercises involving mission-related training between U.S. and Honduran armed forces. Military Airlift Command, as the primary support command, deployed Prime BEEF and RIBS personnel to give force beddown and Harvest Eagle facility operations and maintenance support. Thirteen Prime RIBS personnel were deployed in August 1983 for 60 days to provide food service support.

Exercise Peace Rapid deployed Prime BEEF personnel from May, 1982, to March, 1983. They provided support at Ascension AAF in the South Atlantic. Personnel were responsible for erecting, operating, and maintaining reverse osmosis water purification units (ROWPU) at the installation. This deployment presented a first hand opportunity for the Engineering folks to evaluate the functional capabilities of the ROWPU while employed under a contingency support environment.

Elf-One (E-3A) deployed Prime BEEF

and RIBS personnel to support the E-3 AWACS and its support facilities that are provided by the Royal Saudi Air Force (RSAF). The deployment site was Riyadh, Saudi Arabia. Personnel were deployed for 60 days. Follow-on support is expected to continue for an unspecified length of time.

Coronet Scabbard, hosted by USAFCENTAF, supports a European forward operation. A total of 22 Prime BEEF and nine Prime RIBS personnel are deployed in 179-day intervals to provide operations and maintenance, and food service support to base facilities and personnel. Short-tour credit is awarded to individuals completing the TDY. This is a continuing requirement.

With the Ground Launched Cruise Missile (GLCM) beddown, Headquarters U.S. Air Forces in Europe requested Prime BEEF and RIBS to provide support for the projects at Comiso AB, Italy. A total of 45 Prime BEEF and 18 Prime RIBS members were deployed in May 1983 for 179 days.

An Air Force Foreign Military Sales (FMS) Program Project, Peace Pharaoh, required RED HORSE support to erect and construct a computer facility and eight microwave communication facilities, and to accomplish additional interior construction requirements on existing computer and administration facilities. Twenty-two members were deployed for 179 days in March, 1983. The construction site was at Basatin, Egypt, near Cairo.

The Peace Sun II Construction Project is another Air Force FMS project that provides facilities, valued at more than $600 million, to support the Royal Saudi Air Force. Seven Prime BEEF officers of various disciplines were deployed for 179 days to augment the construction management staff in handling RSAF facility location changes and construction change orders.

In April, 1983, two Prime BEEF officers were deployed to Headquarters Alaskan Air Command to augment the contract programming division. Members were TDY there for 90 days.

Exercise Bright Star 84 is a joint service exercise conducted annually at Cairo West, Egypt, and other forward operating locations. Its primary objective is to evaluate Rapid Deployment Force (RDF) capabilities. Prime BEEF and RIBS personnel from Tactical Air Command and Strategic Air Command were deployed to support force beddown of deployed F-15s, for O&M requirements, and to provide food service support. The exercise was held July-September 1983 and TDY duration was 63 days.

Poker Bluff requires engineering support to utilities and the maintenance of porta-camp shelters sited in Honduras. The porta-camps function as dining and recreational facilities and as transient quarters for the Tactical Air Control Party (TACP) forces. The 60-day deployment began in August, 1983.

In Trust Territories of the Pacific Islands (TTPI), a civic action team is deployed to the Moen Island, Truk District, East Caroline Islands, to provide expertise for construction of public facilities, technical advice and assistance on local projects, vocational on-the-job training, and limited medical assistance. The team is composed of an officer and 12 enlisted personnel and deployed every 9 months. Short tour credit is awarded for this TDY.

The United Kingdom Prime RIBS Support Project required food services for the interim relocation of a partial F-111 wing from Lakenheath. Eighteen Prime RIBS personnel were deployed to Sculthorpe AB, the UK, from June to September 1983.

These deployments confirm the ability of our mobile Prime BEEF and RIBS forces to respond and deploy between commands to meet time-sensitive commitments. For those wanting greater fulfillment of the promises made by the recruiting brochures and posters, note that there truly are:

- Opportunities to travel,
- Accomplishment of a specific project or objective,
- Personal skill enhancement, and
- Increased responsibility as a manager or technician.

Most importantly, we believe many of these deployments offer our personnel a unique opportunity for training in wartime-typical conditions. This is particularly true during exercises. Harvest Bare and Harvest Eagle equipment is frequently used, and expedient methods are often required.

MAJCOM responses to intercommand deployments have continually reflected a positive tone. This "can-do" spirit has greatly enhanced the reputation of our Prime BEEF and Prime RIBS programs, and has done much to further the quality of our forces.

Capt. William F. (Fred) Eng is currently assigned to the Combined Forces Command, Seoul, Korea. He was formerly assigned to the Plans and Policy Division, Directorate of Readiness, HQ AFESC, Tyndall AFB, Fla. He holds a bachelor of Architecture degree from Texas A&M University, and was awarded a masters degree in Business Administration from the University of West Florida. He completed Air Command and Staff College by correspondence and is a member of the Society of American Military Engineers.

Who's minding the store ?

by Lt. Col. Paul R. Begansky

How many times have you been away from the job and asked yourself, "I wonder if everything is going well?" or "What sort of mess will I have to face when I return?" Many supervisors and commanders are fearful of taking leave or going TDY for an extended period because they practice pinnacle management and have not prepared or trained the staff to make decisions.

Prime RIBS (Readiness in Base Services) exercises and other real-world deployments can require extended periods of TDY. To illustrate, I was TDY in excess of 4 weeks on three separate occasions during 1983. I also spent more than 5 weeks with a site survey team evaluating proposed exercise sites. One TDY was to Southwest Asia, where communication with my home base was not possible.

TDY commitments can also cut into the staff that is normally left behind to do the job. On two occasions our food service activity deployed 22 of its 49 assigned food service personnel. On another occasion, 22 food service personnel were deployed to support real-world contingencies while I was deployed elsewhere with six Services personnel. The deployed teams removed a cross section of our unit's top and midlevel NCOs and could have severely impacted on our ability to support the mission at Langley AFB, Va.

I have no apprehension about the question, "Who's minding the store?" In all cases, I leave behind a team of officers, civilians, NCOs and young airmen trained to make decisions daily — independently and as a team. During one very large deployment, the team professionally went about their business. They met incoming TDY assistance personnel at the airport, arranged for quarters, provided food service orientation and training, and succeeded in fitting these reserve and active duty personnel into the work schedule within 24 hours. The newcomers quickly became productive assets on the team and subsisting personnel were unaware that our food service personnel were deployed elsewhere.

How do you train such a team? For those organizations who have an operations officer, make that person productive. Too many times the operations officer is assigned menial tasks such as Honor Guard and Air Force Assistance Fund/Combined Federal Campaign coordinator. They often do not work directly in their profession — Services. True, they attend professional courses at Lowry AFB, Colo., but how much of this knowledge do they get to actually use? What tasks do you assign a new lieutenant?

Some tasks cut across the full spectrum of Services, specifically budget and self-inspection. Budgeting gives new officers insight on how Services functions are financed; it requires them to interact with staff agencies outside of Services, specifically base supply and budget. It also requires them to interact with each of the Services functional managers. As budget officer, they learn how the functional areas operate and they learn about their problems. This sets the stage for self-inspection. The self-inspection program allows the young officer to become more familiar with each functional area.

Lt. Col. Paul R. Begansky is special assistant to the base commander, Langley AFB, Va. He formerly commanded the 1st Services Sq. there. Before, he was commander, 410th Services Sq., K.I. Sawyer AFB, Mich. A graduate of Air Command and Staff College and the Industrial College of the Armed Forces, he holds the bachelor of science degree in Physical Education from the University of Maryland. He was commissioned through AFROTC.

Involving the operations officer in the planning process and Prime RIBS activities provides an important opportunity to see what is required to be "mission ready." Equally important is the opportunity to manage their own functional area — such as linen exchange. In this way they learn to work with people to acquire and apply leadership, management, and communicative skills.

The large "stand-alone" activities of food service and billeting must also be brought into the "team management" loop. Too many times these functions become so involved and mired in their own activities that they forget they are part of the team. Civilian managers want to be a part of the team — all you need do is allow them. Our civilians, who are often retired senior NCOs, possess the "corporate memory" and can be invaluable in resolving problems outside their area of expertise. They know their role and are willing to share their knowledge with young officers who want to learn Services. If you have officers in two or more of your functional areas, have them work in each other's job for a 60-to-90-day period. They not only learn another job, but they obtain a better understanding of the interplay between the two functions.

Last, but not least, have your top-four NCOs involved in the decision making-policy. Too often, Services managers polarize and become self-entities. These NCOs must be part of the "team effort."

You should not need to worry about the question, "Who's minding the store?" If you train your subordinates to make decisions and act as a team — the answer to the question is, "Everyone!" The concept of having your subordinates take part in the decision making process will make your job easier and help in the development of a smoothly operating organization, and more professional managers and future leaders.

People, Places & Events of Interest

P-19 FIRE TRUCK TESTED AT TYNDALL

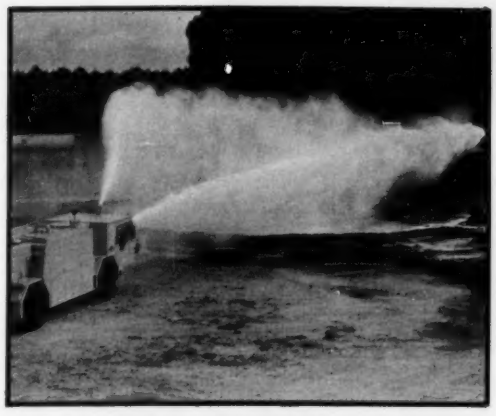
A new diesel-powered all-weather crash fire rescue (CFR) truck, called the P-19, has been tested at Tyndall AFB, Fla., for Air Force use. The P-19 will replace the aging P-4.

Staged aircraft fires at the Tyndall fire department's training area were used to test the new vehicles. As these tests were underway, the Army ran the new truck through a cross-country and over-the-road test at Aberdeen Proving Grounds, Md. U.S. Marine Corps testing was done at Beaufort Marine Corps Air Station, S.C.

The P-19s are much easier to air transport than the P-4s. P-19s can be configured for loading on a C-130 Hercules within 5 minutes, compared to the 12 hours required for the P-4.

The 1,000-gallon unit will bring CFR vehicles more in line with current requirements. Five hundred pounds of Halon 1211 can be used as an auxiliary agent.

The Defense Department plans call for buying more than 600 P-19s under a multiyear contract. The new trucks are expected to be in the Air Force inventory



beginning in September 1985, with delivery of nine units per month for an initial total of 428 vehicles. The Air Force is focal point for the multiservice acquisition. Air Force Logistics Command's Warner Robins Air Logistics Center is buying the firetrucks for all services. (AFESC/DEF, Mr. Garrett, AUTOVON 970-6149)

AIR FORCE FOOD SERVICE AND LODGING RANKED 10TH IN THE WORLD

The Air Force ranks 10th in the world in running a "Ramada or Holiday Inn" — type service, according to a national food industries report.

On a budget of less than $150 million a year, the Air Force food services and lodging organizations provide some of the most complex, diverse, and cost-effective operations to be found anywhere. An annual report in ***Restaurants and Institutions***, published each summer, rated the Air Force 43rd in comparison to other "restaurant" organizations only.

The top-10 ranking came from comparison to those firms combining both food and lodging. Nearly 100 million Air Force "customers" a year are fed three meals a day, each meal costing from 75 cents to $5, depending on what's purchased.

The food offered by some 450 AF outlets around the world is comparable to civilian sources for cost, taste and variety. Full meals are prepared, but fast-foods, such as hamburgers, french fries, hotdogs, sandwiches and salads, are available to those who prefer.

The figures determining the worldwide rankings didn't include thousands of in-flight meals, support for those on maneuvers or exercises by mobile kitchens, or the thousands of meals consumed in the field through packaged, dried, canned or dehydrated field rations. (AFESC/DEH, Lt. Col. Dooley, AUTOVON 970-6169)

SAN ANTONIO ALC WINS AFLC RAWLINGS AWARD

In their efforts to conserve energy, the Directorate of Maintenance employees at the San Antonio Air Logistics Center at Kelly AFB, Tex., has won the 1983 AFLC Gen. Edwin W. Rawlings Energy Conservation Award.

These efforts, ranging from reporting water, air or steam leaks to reviewing energy needs required by complex logistics processes, created an annual energy savings of $4.8 million. Another $5.6 million is savings is expected from other energy-related actions in progress or proposed at the Air Force Logistics Command base.

In one case, five vacuum furnaces were cooled by means of an open tap water system. By redesigning and connecting the furnaces to a closed-loop chilled water system, the directorate saved 139 million gallons of water per year in addition to an annual energy cost savings of $25,000. (AFLC Lognews)

GEN. MARQUEZ ADDRESSES HENNESSY BANQUET

The keynote address before the annual Hennessy trophy presentation luncheon was delivered by Lt. Gen. Leo Marquez, Air Force deputy chief of staff for Logistics and Engineering.

"One of the lessons I've learned throughout the years in dealing with people in the Air Force is that you don't violate certain first principles. Among those are not messing up the pay of the troops or the quality of their food," he said.

"Nothing will more quickly boost the morale of the troops than quality food served in a pleasant atmosphere. The American public is quick to recognize excellence in food service. The American soldier is merely a reflection of that same trait. We are a microcosm of our society."

He continued, "We in the Air Force owe all of you a debt of gratitude for the enduring contributions you have made to improving our food service. Over the years, our professional performance and contributions have gone a long way in improving the quality of life in the military. Those contributions directly translate into improved morale and retention."

He called for excellence if the nation is to be economically and politically strong, citing that our strength is in the people, "properly motivated and led to excel in their particular job. Excellence in our people must always be our number one priority. It is the single distinction that sets western democracy and the United States apart from much of the world. And it continues to be the ray of hope for those around the world still willing to risk their lives to come to America."

He also cited the need to continue shoring up the strength of the defense establishment, pointing to the long history of catastrophic wars which followed national indecision and unpreparedness in the face of aggressive strength. He also noted the continuing expansion of the Soviet military presence in the world.

"The security of our country does not come cheap, not without sacrifice," he said. "The price of freedom never does. Weakness is the friend of the aggressor, strength is his nemesis."

SINGLE UNIT WINNER — Lt. Gen. Leo Marquez, HQ USAF/LE, presents the Hennessy Trophy to Col. Arthur C. Weiner, base commander, 2852nd Air Base Group (right), and Col. William R. Craig III, former director, Housing and Services, HQ AFLC, now director, Housing and Services, HQ AFESC.

MCCLELLAN AND CHANUTE WIN HENNESSY AWARDS

The 1984 Hennessy awards have been presented to McClellan AFB, Calif., (single-unit category) and Chanute AFB, Ill., (multiple-unit category). The runners-up were England AFB, La., and George AFB, Calif.

The 914th Tactical Airlift Group, Niagara Falls International Airport, N.Y., was named winner of a special category for Air Force Reserve dining facilities.

The Hennessy awards are presented each year during the National Restaurant Association's (NRA) convention in Chicago to recognize the best Air Force dining facilities. Sponsors for the award are NRA, Society for

Foodservice Management, and the International Food Service Executives Association.

Other bases competing for the 1984 awards included:

• Single unit: Vance AFB, Okla.; Ft. G.G. Meade, Md.; Dover AFB, Del.; Blytheville AFB, Ark.; King Salmon Airport, Alaska; and RAF Fairford, United Kingdom.

• Multiple Unit: Templehof Central Airport, Germany; Eglin AFB, Fla.; Maxwell AFB, Ala.; Osan AB, Korea; and Sawyer AFB, Mich.

CAT TEAM PICKED

A formal selection board at HQ AFESC has selected personnel for the Trust Territories of the Pacific Civic Action Team (Moen Island) Program.

The 12-member team will be TDY for 240 days. Capt. William M. Duncan, Aero Systems Division/DET, Wright-Patterson AFB, Ohio (AFSC), will be OIC and SMSgt. Thomas E. Holbert, 6550 CES/DEMG, Patrick AFB, Fla. (AFSC), will be NCOIC. (HQ AFESC/DEOP, Capt. Graham AUTOVON 970-6740)

FOUR DECADES OF SERVICE HONORED

Mary Tomalenas was honored in April for more than 40 years service to the Air Force — all in the same directorate!

Senior secretary in the Architecture and Engineering Branch, Engineering Division of HQ USAF/LEE, Mary was invited to the directorate offices at the Pentagon, where Maj. Gen. Clifton D. Wright Jr., USAF Director of Engineering and Services, presented her with a special certificate honoring her long service, and a letter signed by Gen. Charles A. Gabriel, Air Force Chief of Staff.

She started her career April 17, 1944, working for Brig. Gen. Robert Kauch, and has served every director since. General Kauch departed in January, 1948. Since that time, the directors have included: Maj. Gen. Grandison Gardner (Sept., 1948 — March, 1949); Maj. Gen. James B. Newman Jr. (March, 1949 — May, 1950); Lt. Gen. Patrick W. Timberlake, Dec., 1950 — Jan., 1952); Maj. Gen. Colby M. Myers (June, 194 8 — Sept., 1949; May, 1950 — Dec., 1950; Jan., 1952 — June, 1952); Maj. Gen. Lee B. Washbourne (June, 1952 — July, 1957); Maj. Gen. Augustus M. Minton (July, 1957 — July, 1963); Maj. Gen. Robert H. Curtin (July, 1963 — May, 1968); Maj. Gen. Guy H. Goddard (May, 1968 — Jan., 1972); Maj. Gen. M.R. Reilly (Jan., 1972 — March, 1974); Maj. Gen. Billie J. McGarvey (March, 1974 — April, 1975); Maj. Gen. Robert C. Thompson (April, 1975 — July, 1978); Maj. Gen. William D. Gilbert (July, 1978 — Aug., 1982); and Maj. Gen. Clifton D. Wright Jr., Aug., 1982 to the present.

Her boss, Bill Brown, the Air Force chief architect, said, "Mary has always been here when we needed her, to give advice, assistance, and help in any way that she could. The Air Force is very fortunate to have as a member of our staff someone as loyal, dedicated and committed as Mary."

AF FIRE PROTECTION "BEST" IN DOD

Air Force fire loss statistics for 1983 revealed the best fire loss record of all DoD component services. There were no fatalities, the fire loss record was the best since 1976, and the dollar loss amount was less than half of the 1982 figure for facilities.

The fire save factor for facilities in 1983 was 99.7 percent, while the same figure for aircraft stood at 96.9 percent.

The installation of smoke detectors in Military Family Housing (MFH) and dormitories continues to be the most significant factor in saving lives. Of the 424 fires in these facilities, detectors activated 158 times, and were directly credited in 69 cases as being the singular factor warning the occupants early enough to allow escape.

Even though numerous fires are still due to careless kitchen accidents and children playing with matches, the overall MFH fire rate of 2.2 per 1,000 units is still five times better than the estimated 10 plus per 1,000 rate for civilian communities, according to the National Fire Protection Agency.

	USAF	NAVY/ USMC	ARMY
No. Fires	695	1460	745
Fatalities (MFH, Dorm)	0	6	2
Injuries	93	183	86
Govt. Loss	$6.8M	$12.3M	$12.3M

(AFESC/DEF, Maj. Ray, AUTOVON 970-6149)

Air Force Takes Five DOD Design Excellence A

by H. Perry Sullivan Jr.
Editor

Air Force projects earned five of the 11 Department of Defense awards for design excellence in ceremonies held March 27 at the headquarters of the American Institute of Architects in Washington.

The awards were presented by Deputy Secretary of Defense William Howard Taft IV, assisted by Lawrence J. Korb, Assistant Secretary (Manpower, Installations and Logistics). Receiving the Air Force awards were Karen R. Keesling, principal Deputy Assistant Secretary of the Air Force (Manpower, Reserve Affairs and Installations), and Maj. Gen. Clifton D. Wright, Jr., Air Force Director of Engineering and Services.

Also present at the award ceremonies were other high-ranking civilian officials within the DOD, representatives of the AIA, the civil engineering leadership of the Army and the Navy, representatives of the Air Force regional civil engineering offices, design agents, the military commands which use the facilities, and the architectural and engineering firms receiving awards

BLUE SEAL AWARD — Maj. Gen. Clifton D. Wright Jr., left, Air Force Director, Engineering and Services, Ms. Karen R. Keesling, Principal Deputy Assistant, Office of the Assistant Secretary of the Air Force, Manpower, Reserve Affairs and Installations, receive the coveted Blue Seal Award for design excellence from William H. Taft IV, Undersecretary of Defense. Winner was the Air Force Academy library addition (cover).

The Air Force received several honors, including the coveted Secretary of Defense Blue Seal award. Other honors included Excellence in Architecture and Excellence in Engineering awards. Taking the top honor was the library expansion at the Air Force Academy which also received an Excellence in Architecture award. Other Excellence in Architecture awards went to the Regional Operational Control Center, Griffiss AFB, N.Y., and the commissary at Los Angeles AFS, Calif. An Excellence in Engineering award went to the central heating plant at F.E. Warren AFB, Wyo.

Earlier the Air Force honored its best projects for 1983. The Air Force program is to recognize and promote design excellence. Three levels of awards are presented in two categories. Honor, merit and citation awards are given to both completed projects and to conceptual projects.

Jury for the Air Force awards represented both the AIA and the Society of American Military Engineers. This year's panel included R. Bruce Patty, Kansas City, Mo., and J. Peter Winkelstein, San Francisco, Calif., both fellows of the AIA; and Michael Brooks, McLean, Va., and Donald Noon, Springfield, Va., both named to the panel by SAME. Nominations for the design awards are through MAJCOM channels. Judges see project books, design details, and a photo display.

Winners of the 1983 Air Force awards are:

Honor Awards, Completed Projects

Loring AFB, Me., dormitory
- Architect: Ellenzweig, Moore and Associates
- Eastern AFRCE
- Command: Strategic Air Command
- Design Agency: New York District, Army Corps of Engineers.

Commissary, Los Angeles AFS, Calif.
- Architect: Leidenfrost/Horowitz Associates
- Western AFRCE
- Using Agency — Air Force Commissary Service
- Command: Air Force Systems Command
- Design Agency: HQ Space Division, Deputy Chief of Staff, Engineering and Services
- Base Civil Engineering Organization: 6592nd CES.

Langley AFB, Va., Architectural Compatibility Program (special award)
- Command: Tactical Air Command
- BCE: 1st CES. (See pages 22-23.)

Merit Awards, Completed Projects

Hangar for E-4B, Offutt AFB, Neb.
- Architect: Burns & McDonnell
- SAC AFRCE
- Command: SAC
- Design Agency: Omaha District, Army CofE
- BCE: 3902nd CES

Kelly AFB, Tex., Dormitory Alteration
- Architect: Richard Armstrong, Inc.
- Command: Air Force Logistics Command
- Design Agency: Ft. Worth District, Army CofE
- BCE: 2851st CES

Total Energy Plant, Wilford Hall Medical Center, Lackland AFB, Tex.
- Architect: Benham Blair & Affiliates; Page Southerland Page
- Central AFRCE
- Host Command: Air Training Command
- Using Command: Air Force Systems Command
- Design Agency: Ft. Worth Dist., Army CofE

Filling Station and Branch Exchange, Eglin AFB, Fla.
- Architect: The Bullock Associates, Architects, Planners, Inc.
- Command: AFSC
- Design Agency: Army & Air Force Exchange Service
- BCE: 3202nd CES

Library Expansion, Air Force Academy, Colo.
- Architect: Henningson, Durham & Richardson, Inc.
- Central AFRCE
- Design Agency: Omaha Dist., Army CofE
- BCE: AFA Staff Civil Engineering Office

PLACE STAMP HERE OR MAIL THROUGH OFFICIAL CHANNELS

HQ AFESC/DEJ
Tyndall AFB, Florida 32403

OFFICIAL BUSINESS

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Tyndall AFB, Florida 32403

OFFICIAL BUSINESS

READERSHIP SURVEY

I am:
- Air Force
- Air Force Reserve
- ANG
- Army
- Navy
- Civilian Employee (_____)
  (Service or Branch)
- Contractor
- Other:

I am assigned to:
1. OSD Staff/Agency
2. Air Force Secretariat
3. Air Staff
4. Major Command
5. Separate Operating Agency
6. Numbered Air Force or Equivalent
7. Wing or Group
8. Squadron
9. Unit or Detachment
10. AFIT Student
11. Technical Training Center Student
12. Civilian Corporate Headquarters
13. Other:

PME:

SOS	NCO Sr Academy
ACSC	NCO Leadership
AWC	NCO Academy
ICAF	

Education:
- High School
- Bachelors Degree (Major: _____)
- Master's (Major _____)
- Doctorate (Major _____)

Professional Affiliations/Registration:
_____
_____
_____

Current Duties:
First indicate where you are in engineering or services, then check the two words best describing your duties, one from each category.

Engineering - Services

Category I		Category II	
Environmental	Fire Protection	Clerical	
Heavy Equipment	Industrial	Support	Engineering
Structures	Contract	Administration	Planning
Electrical	Financial	Control	Programming
Materials	Training	Supervision	Design
Mechanical	Food	Maintenance	Staff
Sanitation	Housing	Supply	Other: _____
Bench Stock	Furnishings	Operation	
Pavements/Grounds	Mortuary Affairs		
Power Production	Commissary		
Research & Development	Exchange		
Energy	Billeting		
	Dormitory		
	Laundry		
	Facilities		
	Community		
	Other:		

USAF Military/Civilian Personnel:
My Military AFSC is:
(Civilian employees please use military AFSC assigned to the position you hold.)
Circle number indicating level of rank or grade.

1 2 3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 0

DOD Personnel:
Officer ("O") Civilian
Enlisted ("E") • SES • WG • GS • Appointive • NAF

Insert proper letter

1: ○ 2: ○ 3: ○

4a: 1 2 3 4 / 5 6 7 8 / 9 10 11 12

4b: 1 2 3 4 / 5 6 7 8 / 9 10 11 12 / 13 14 15 16 / 17 18 19 20 / 21 22 23 24 / 25 26 27 28 / 29 30 31

5: ○ 16: ○
6: ○ 17: ○
7: ○ 18: ○
8: ○ 19: ○
9: ○ 20: ○
10: ○ 21: ○
11: ○ 22: ○
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13: ○ 24: ○
14: ○ 25: ○
15: ○ 26: ○

Comments
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RESPONSE CARD
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I am:
- Air Force
- Air Force Reserve
- ANG
- Army
- Navy
- Civilian Employee (_____)
  (Service or Branch)
- Contractor
- Other:

I am assigned to:
1. OSD Staff/Agency
2. Air Force Secretariat
3. Air Staff
4. Major Command
5. Separate Operating Agency
6. Numbered Air Force or Equivalent
7. Wing or Group
8. Squadron
9. Unit or Detachment
10. AFIT Student
11. Technical Training Center Student
12. Civilian Corporate Headquarters
13. Other:

PME:

SOS	NCO Sr Academy
ACSC	NCO Leadership
AWC	NCO Academy
ICAF	

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Bench Stock	Furnishings	Operation	
Pavements/Grounds	Mortuary Affairs		
Power Production	Commissary		
Research & Development	Exchange		
Energy	Billeting		
	Dormitory		
	Laundry		
	Facilities		
	Community		
	Other:		

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Power Production	Commissary		
Research & Development	Exchange		
Energy	Billeting		
	Dormitory		
	Laundry		
	Facilities		
	Community		
	Other:		

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(Civilian employees please use military AFSC assigned to the position you hold.)
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15: ○ 26: ○

Comments
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RESPONSE CARD
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E&S Quarterly SURVEY E&S Quarterly

1. How do you normally obtain the Quarterly?

a. Official USAF distribution (PDO)
b. Government Printing Office paid subscription
c. Army/Navy distribution
d. AFESC distribution
e. Library
f. Friend
g. Unknown

2. How many other readers do you estimate will see your copy of the Quarterly?

a. Only myself
b. One to five
c. Six to ten
d. Eleven to fifteen
e. Sixteen or more
f. Do not know

3. The number of copies distributed to your duty section through official channels is:

a. Enough
b. Not enough
c. Too many
d. None
e. Not eligible for offical distribution

4. When did you first see this issue?

a. Circle number of month:

1 2 3 4 5 6 7 8 9 10 11 12

b. Circle day of month:

1 2 3 4 5 6 7 8 9 10 11 12
13 14 15 16 17 18 19 20 21
22 23 24 25 26 27 28 29 30
31

5. How many issues annually do you see?

a. First issue
b. Two
c. Three
d. Four

6. How much of each issue do you usually read?

a. All
b. Most
c. About half
d. One or two articles or departments
e. Very little
f. Look at but seldom read
g. Varies, depends on issue

7. Do you, or does your office or organization, retain back issues of the Quarterly?

a. Yes
b. No
c. We are going to
d. Do not know

8. Which of the following describes the value of the Quarterly to you? (Select as many as applicable)

a. Have used some contents in my work/professional life
b. Some ideas/information may be useful in the future
c. Educational-increased my understanding of Air Force Engineering and Services
b. Informative - learn something new each issue
e. Interesting-but of little direct value
f. Uninteresting-but of some value
g. No value

Please rate each of the following:

A. Poor
B. Unsatisfactory
C. Satisfactory
D. Good
E. Excellent

9. Layout (general appearance)
A B C D E

10. Type (print and size)
A B C D E

11. Proofreading (composition)
A B C D E

12. Graphics (tables and charts)
A B C D E

13. Article quality
A B C D E

14. Article thoroughness
A B C D E

15. Article variety
A B C D E

16. Current Emphasis
A B C D E

17. ESQ World
A B C D E

18. CESMETtips
A B C D E

19. TECNOTES
A B C D E

20. Photographs
A B C D E

21. Front cover
A B C D E

22. Back cover
A B C D E

23. Overall relevance
A B C D E

24. The Quarterly meets its purpose as stated on the contents page of each issue.

a. Strongly agree
b. Agree
c. Undecided
d. Disagree
e. Strongly agree

25. How do you rate the Quarterly in comparison with other Engineering and Services type publications?

a. The best
b. Among the best
c. Better than most
d. Average
e. Worse than most
f. Among the worst
g. The worst
h. I am not familiar with any other E&S publication

26. What other regular departments or features would you like to have in the Quarterly? (Select as many as applicable)

a. Problem solving studies, research briefs
b. Thesis abstracts
c. Calender of events
d. Letters to the editor
e. Other (Specify in comments)
f. None, leave as is

Comments Section:

Use the space provided at the bottom of the answer card to make additional comments about the E&S Quarterly, or topics you would like addressed in future issues. If you need more space, mail your additional comments with the response card together in an envelope to the Reader Survey address.

RESPONSE CARD MISSING?

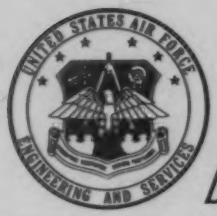
We still want to hear from you. Make a copy of this page, mark your response to each question, add your other comments and mail to: Reader Survey, Air Force Engineering and Services Quarterly, HQ AFESC/DEJ, Tyndall AFB, FL 32403.

Authority: 10 USC, 8012, Secretary of the Air Force and Duties, Delegation by.

Principal Purpose: This survey is being conducted to evaluate the effectiveness of the Air Force Engineering and Services Quarterly and provide the readership an opportunity to influence the future editorial policy of the publication.

Routine Use: Survey data will be analyzed by the Director, Engineering and Services, Headquarters USAF, to determine the Quarterly's strengths and weaknesses, the preferences of the readership, and the editorial needs of the Engineering and Services professional community. Participation in this survey is entirely voluntary. No adverse action of any kind may be taken against any individual who elects not to participate in this survey.

USAF Survey Control Number 84-85 (Expires Dec.31, 1984).



Air Force Engineering & Services Quarterly

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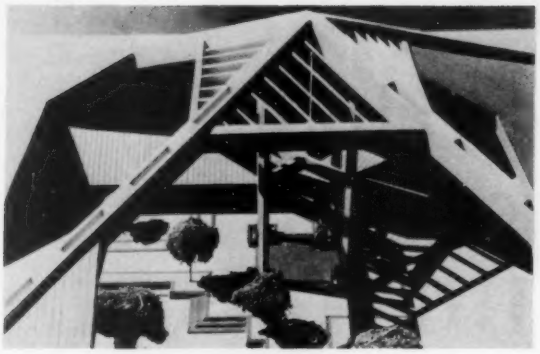
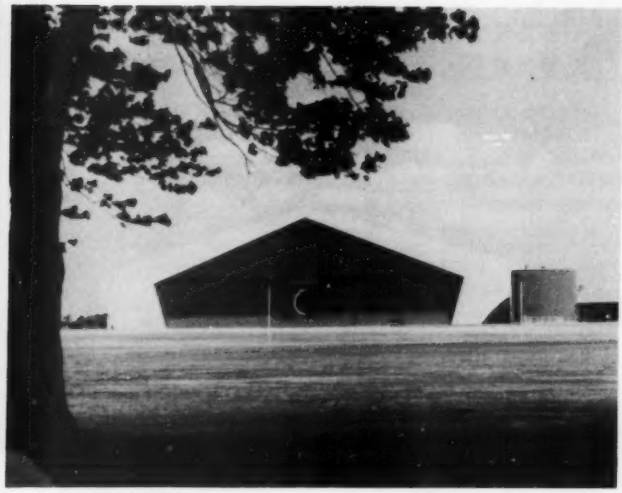
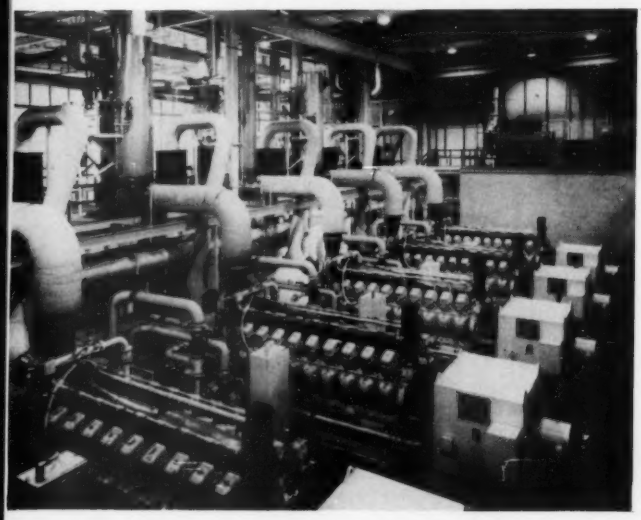


LACKLAND AFB chapel complex.



OFFUTT AFB, Neb., E-4 hangar.

TOTAL ENERGY PLANT, Lackland AFB, Tex.



LOS ANGELES AFS, Calif., commissary.

Concept Projects, Honor Award

Chapel Center, Lackland AFB, Tex.
- Architect: V. Aubrey Hallum, Architects/Planners
- Central AFRCE
- Command: ATC
- Design Agency: Ft. Worth Dist., Army CofE
- BCE: 3700th CES

Concept Projects, Merit Awards

Dining Facility, Andrews AFB, Md.
- Architect: Cooper-Lecky Partnership
- Eastern AFRCE
- Command: Military Airlift Command
- BCE: 1776th CES

Medical Training and Dining Facility, Nashville Metro Airport, Tenn.
- Architect: Bayer Edgens, Inc.; Gould Turner Group, P.C.
- Eastern AFRCE
- Command: National Guard Bureau
- User: Tennessee ANG
- Design Agency: U.S. Fiscal and Property Office
- BCE: 134th CEF

Fire Station, McGhee-Tyson Airport, Knoxville, Tenn.
- Architect: Barber & McMurry Inc., Architects
- Eastern AFRCE
- Using Command: ANG Bureau
- User: Tennessee ANG
- Design Agency: USFPO
- BCE: 134th CEF

Completed Projects, Citation Award

Lodging Facility, Bolling AFB, D.C.
- Architect: Cohen-Karydas & Associates, Chartered
- Eastern AFRCE
- Command: MAC
- BCE: 1110th CES

Lodging Facility, Hanscom AFB, Mass.
- Architect: R. Wendell Phillips Associates
- Eastern AFRCE
- AFSC
- BCE: 3245th CES

Dormitory Conversion, F.E. Warren AFB, Wyo.
- Architect: Davis Partnership, P.C.
- SAC AFRCE
- Command: SAC
- Design Agency: Omaha Dist., Army CofE
- BCE: 90th CES

Visiting Officers' Quarters, Vandenberg AFB, Calif.
- Architect: Schoenwald-Norwood-House-Oba, Inc.
- Western AFRCE
- Command: SAC
- Design Agency: Sacramento Dist., Army CofE
- BCE: 4392nd CES

FIRST USAF ARCHITECTURAL COMPATIBILITY AWARD HONORS LANGLEY AFB

by Allan Hockett

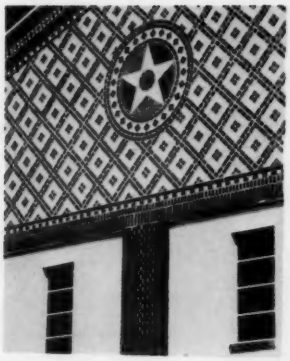
In 1979 a decision was made to improve Langley AFB, Va. A 5-year plan was developed to identify those projects necessary to implement the roads and grounds and some new buildings. The majority of the architectual tasks identified in the program concerned the rehabilitation of existing facilities. the challenge, however, far exceeded the original scope due to the diversity of architectures and exterior designs, the ages of facilities, and the necessity to relate the new to the existing built environment.

Langley AFB proper is three contiguous, yet distinct land areas. The heavier-than-air (HTA) area is composed mainly of brick masonry structures dating from 1925-1936. These facilities are of three functional types: single-family and duplex houses, three story dormitories and "open" bay industrial use buildings. The lighter-than-air (LTA) area is composed of brick residences, a single dormitory, and a few stucco houses, all constructed during 1934-1938. The shellbank area buildings are a mixture of varying styles and materials dating back from 1910 to the present.

It was determined that the 5-year plan would recognize the heritage and personality of the older masonry structures, while improving their livability, i.e., bring them up to present-day standards. A further decision was made to create a visual cohesiveness within each land area while visually connecting the areas themselves to give the total base a new sense of order and homogeneity.

Implementing these goals was challenging as the architectural forms varied from modified Tudor, to painted concrete block boxes, to corregated metal aircraft hangars. The range of forms was further complicated by a wide range of colors and textures. Most of the facilities were in serious need of repair. Although each facility was unique, all design decisions were made toward accomplishing the goals stated above.

The primary visual binder is paint. After thoroughly examining the existing historic materials, a brown was selected from hues in existing brick and roofing tiles and a cream-white was selected, based on ex-



isting stucco colors. The brown was used primarily as trim or accent with the cream usually acting as a background. In a few cases, such as some aircraft hangars, the color roles were reversed. Standardized graphics were designed for street, organizational and building identifiifcation signage. The sign colors were the same brown and cream, as well as dark bronze anodized aluminum. This same aluminum color was used with bronze solar glass in all cases requiring window unit replacement for energy purposes. Block-masonry and stucco were used as infill to replace large, energy-consuming glass walls in the older industrial buildings. A roof master plan was developed for long-term reroofing of historic buildings. Landscaping was redeveloped including the planting of flowerbeds in public areas.

The result is a brighter, more cohesive atmosphere which preserves the older feelings without "tudorizing" the entire base. With the economic use of paint, mundane forms were given a new visual life and an improved scale, without resorting to major alterations of the exterior surfaces. Today, Langley AFB serves as a positive example of people working together to create a recognizable identity out of a formerly fragmented, random environment.

UNDERSECRETARY TAFT CITES DESIGN EXCELLENCE

Secretary Weinberger and I want you to know that we recognize the contribution design excellence makes to low cost, efficiency, and maintainable facilities. We are very much aware that the men and women we honor tonight have done more than marry form and function. Beyond their considerable aesthetic value, the buildings they have created are particularly worthy of distinction because they will be saving defense dollars for years to come. In fact, I wish some of the more vocal critics of the Defense budget could be here tonight to see that we are successful at building economy into our defense installations, so that we can keep future operating and maintenance costs under control.

Besides the direct costs of defense, there are the intangible benefits, benefits that do not lend themselves to quantification. Freedom is one. Peace is another, and good people, dedicated to the preservation of peace and freedom, will be more highly motivated and enjoy higher morale because of the pleasant surroundings your dedication has provided.

So as I conclude my brief remarks here, let me again deliver our thanks to the real professionals who participated in the jury selection process. To all of you who have been selected for well deserved recognition and honor, let me convey my utmost admiration for a difficult job well done.

William H. Taft IV, Undersecretary of Defense, at the Department of Defense design awards presentation, March 27.

A BRAVE NEW WORLD FOR AFLC

by James R. Slager

Everyone has an image of an "ideal" community, and part of that image is its appearance. Not only do the people and institutions interact in a positive and rewarding way, but the structures seem in harmony with each other. There is a compatibility between the places where people live and where they work. Work places have a sense of symmetry and order; there is obvious care and planning in the way that they are built and presented to the public. Inside, workers have an environment that promotes an investment of care to preserve the quality of their work place. It is apparent that someone cares about having a productive and functional facility.

Most people have experienced the chaotic opposite of this ideal. We have seen streets cluttered with signs, conflicting colors and designs, buildings of violently differing styles and motifs, crowded residential neighborhoods — some near highly industrialized areas which have little buffer from their supporting community. On some of the industrial sites, we are left with an impression of disorder; there are evidences of disrepair and workers do not seem to care.

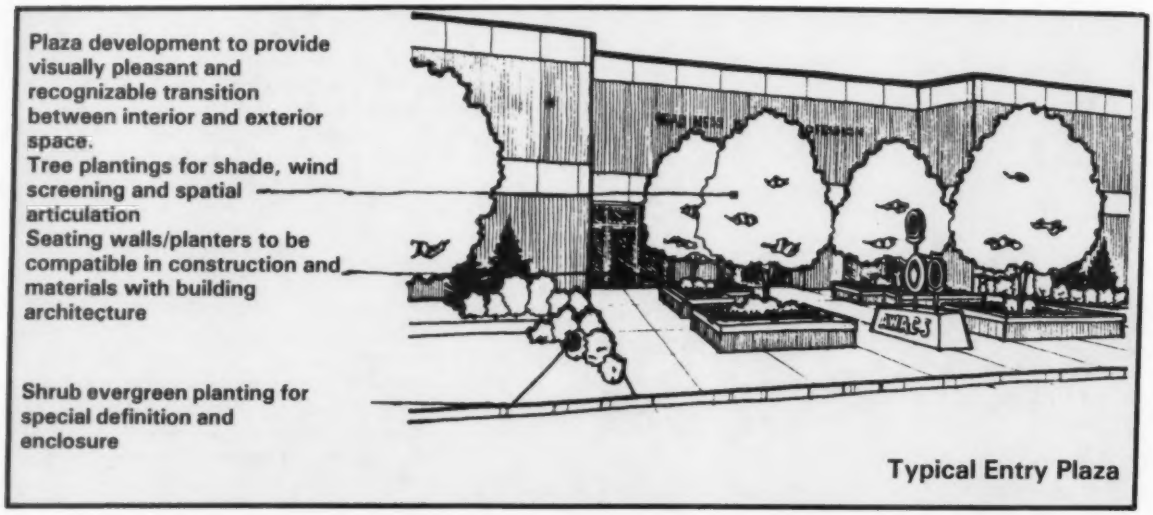
Our military facilities and their supporting communities span the range of appearance and order. Some were built expediently to meet immediate national needs, and perhaps were considered temporary when they were constructed. Springing up outside the military base may have been a temporary town that didn't disappear. Along the highways and main streets leading to the base we can find the hordes of businesses which were attracted to the base as a source of customers. On the base itself, we find homes of varying ages, "maintained" in a state of mediocrity and inadequacy. On industrial bases, we find dwelling areas near storage sites. We also see shops which are old and needing repair. By contrast, there are some bases which have made an obvious effort to make the most of the facilities they have, and to make their new facilities look and function better, and belong to their environment. There are other bases with features which have such historic significance, or which have such good design, that there is the potential for bringing together a new basewide image that is truly distinctive and attractive .

The architectural compatibility program of the United States Air Force is designed to stimulate action at each of our bases which will greatly improve appearance, positively influence productivity, and give our people a far higher quality of life. It is also designed to inspire a positive response from the people who live and work on our bases, and the people who experience our base facilities as residents of nearby communities. Most importantly, it will provide guidelines and concepts to those who program, design and build our future facilities which will ensure order and further enhance the images of our airbases.

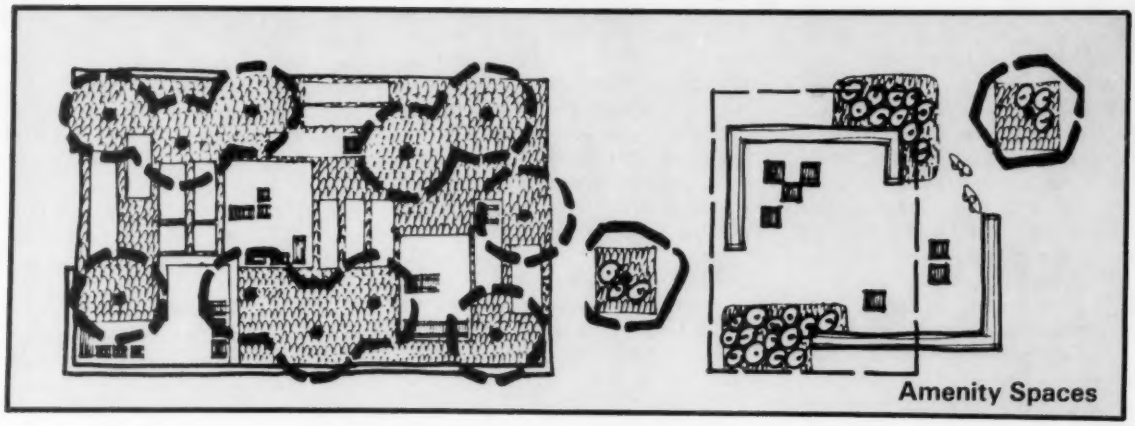
AFLC's Architectural Compatibility Program

At first, the term "architectural compatibility" does not seem a possibility in the Air Force Logistics Command. AFLC is an industrial command with large hangars, industrial facilities, warehouses, railroads and exposed storage areas. Also, the age of AFLC facilities begins at the birthplace of aviation, Wright-Patterson AFB, Ohio. From Kelly AFB, Tex., the second oldest of the facilities, each new depot became part of an evolution of times and styles. To use the mildest expression possible, architectural compatibility may have been an afterthought.

On closer examination, however, there are threads of community architectural expression, some unique statements entirely on our bases, and the potential for creating a sense of cohesion, leading to strong, positive


Plaza development to provide visually pleasant and recognizable transition between interior and exterior space.
Tree plantings for shade, wind screening and spatial articulation
Seating walls/planters to be compatible in construction and materials with building architecture
Shrub evergreen planting for special definition and enclosure
AWACS

Typical Entry Plaza



Amenity Spaces

images of AFLC as a command. At each of our facilities, there were features upon which to draw. Some were on the base. Others were in the community. Still others could be found in the geography of the surroundings. For instance, the history of Kelly AFB is largely that of a military installation with some strong architectural features. It is also situated in an area rich in Hispanic heritage that finds expression in the built environment. At Robins AFB, Ga., located where once there were agricultural fields and orchards, much of the potential exists because of the military facilities placed there over the years. The Capehart housing area is one of the most beautiful in the Air Force. At Wright-Patterson AFB, the old base housing complex provides a cohesive and attractive area upon which many themes and statements can be based.

Further, architectural compatibility includes much more than structures. It includes the sense of belonging with other features of the environment and a sense of identity with the past, present and the future.

AFLC's Deputy Chief of Staff for Engineering and Services is implementing a command-wide architectural compatibility program. The primary purpose of the program is to establish architectural guides and practices which will improve the Air Force quality of life at AFLC facilities. The program is designed to be cost effective and to provide continuity for architectural practices to create and perpetuate sound and pleasing design solutions for the built environment of our people.

The primary objectives that were defined at the outset of the program included the need to prepare guidance in the form of architectural compatibility standards. These were categorized as:

- Architectural Themes — Guidance and direction given in addressing the desired results to be obtained in the design and construction of facilities at our bases. Such items as architectural style, texture, detailing and wall penetrations are addressed.
- Landscape Themes — Establishment of a common basis for plant selection, design, placement and purpose. These themes guide the proper planting materials for a given area along with continuity from building to building and throughout the entire base.
- Architectural Planning Themes — Creating a highly tuned awareness on the part of designers of the relationships between buildings and surroundings that influence facilties with groups and use areas. These relate to the total planning from the base entrance to the point of entry into a given facility. Awareness must include items such as streets, walkways, planting, lighting, building volumes and human amenity spaces. The desired goal is to create a pleasant setting for people as they move about our facilities.
- Preserving Historical Values — A key to our program is a recognition that different areas of the country have unique historical buildings which must be recognized. Certain structures have true historical design value and others have value due to significant historical events. It is important that our designs recogize historical values illustrated in the area surrounding our bases.
- Outdoor Living Amenities — People spend a significant portion of their time outside the built environment. Therefore, outdoor areas require extensive design consideration. Exterior areas such as those used for lunch breaks and social activities are candidates for treatment. By establishing defined outdoor areas that continually embrace the occupants and enrich their lives, we establish an environment which encourages productivity, satisfaction and pleasure.
- Color Selection and Continuity — Among the most significant criteria within the standards, these can be implemented relatively quickly and with a strong impact on the overall success of the architectural compatibility program.

In establishing the objectives, we were confronted with several realities. While AFLC has few bases (only seven) they are generally large. Six of them rank among the seven most populous bases in the Air Force. The number of people who work on AFLC bases exceeds 125,000, including the tenant activities. The number living on AFLC bases is also large, with many base housing units. Considering the unique relationships between the AFLC bases and their neighboring communities, in which they are normally the largest or second largest employer in a given area or state, it was obvious that we were faced with a challenge of sufficient scope and magnitude to require the services of an architectural and engineering firm from each local area. Another variable entering our decision to seek relationships with private professional firms was to insure objectivity, and create an independence from the local base design community. We felt that

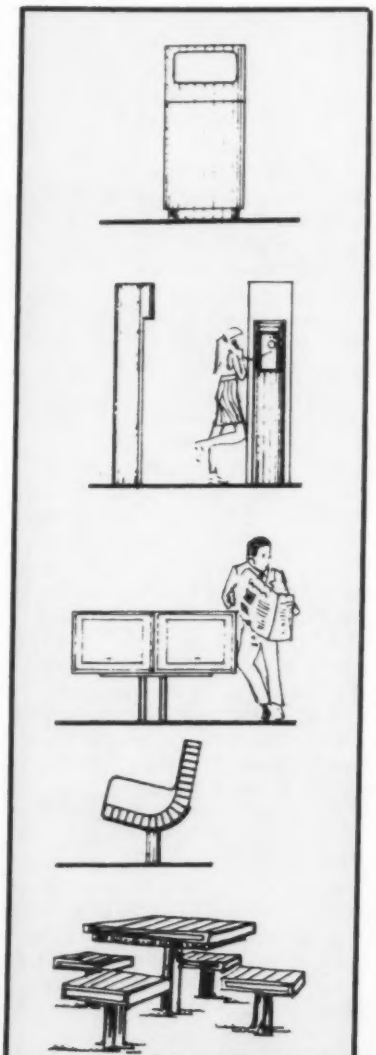
this was critical to success, and was essential to insure that a narrow approach was avoided. It offered a fresh look.

First step in this process was establishing a statement of work incorporating the objectives listed above. After the work statement was converted into a contracting solicitation, we were able to select a separate A&E firm at each of our bases. This allowed for a firm with local awareness, a high availability with a minimum of government-paid travel, and avoiding the many problems associated with time and distance. We established the architect or planner at each base as the guide for the work of the A&E firm. Progress of the work was monitored by the base and command architects at the 35, 65, and 95 percent submittal points. This gave us an opportunity to communicate more fully and achieve truly cohesive concepts compatible not only architecturally, but with overall Air Force regulatory guidance.

The A&E was responding in each case to provide design standards for the themes of architecture, landscape architecture, architectural planning, outdoor amenities, historical heritage and color. The method of preparing the standards was in three parts:

- Investigation involved researching the bases, photographing significant elements, reviewing existing design instruments, and interviewing the base design professionals.
- Status reports gave the A&E and the base personnel a chance to see if all necessary items had been reviewed and understood. This report also included a brief on the direction to be used by the architect-engineer in preparing the necessary standards.
- Architectural compatibility standards were then prepared in a manner which divided each base into several indigenous land use areas, such as industrial, housing, administration, etc. These are areas having common denominators of style and use patterns. Design goals, standards and guidelines were then determined for each of these land use areas. These standards are specific enough for needed guidance, yet flexible enough to allow quality creative design to be developed.

In each case, the response of the participating firms was to create a practical guideline that did not conflict with the stronger themes and expressions. It is obvious that the exigencies of military construction, much of it thought to be temporary at the time of building, could not be effectively reshaped and restructured along some themantic excursion. The western nature of Hill AFB tolerates many different expressions. But, Hill AFB also has an imposed military traditionalism which must be dealt with. McClellan AFB, Calif., must reflect many cross-current themes and expressions that relate to the state capitol of Sacramento, the gold rush, the Hispanic culture, etc. Newark AFS, Ohio, is the most narrowly confined



Street Furniture

AFLC facility, located at Heath, near Columbus. It is for all intents and purposes an industrial plant. Yet, it too must be harmonious with the surroundings. Simple coordination of color and exterior design can totally change the image of the facility. Tinker AFB, Okla., located in the southeast quadrant of Oklahoma City, sits amid an array of facilities which reflect the early temporary nature of the area near the base, modern architecture, efforts to conform to the western ranch simplicity, and institutional architectures which are often highly individualized expressions. The base itself is a unique mixture of the Air Force industrial plant (it formerly housed a Douglas Aircraft Co. production facility) to the established set of facilities which came with each of the depots.

What was achieved took into consideration the topography, the settings within each base, relating them to the community, often through simple use of color and landscape architecture. More important, we achieved a statement for the future which will address the way that we will present each current and future base facility.

The architectural compatibility standards which resulted from the efforts of the A&E firms are now being implemented in the FY 84 operations and maintenance program, and the FY 85 and FY 86 military construction program and the non-appropriated fund design efforts. To achieve this meant meeting several important milestones:

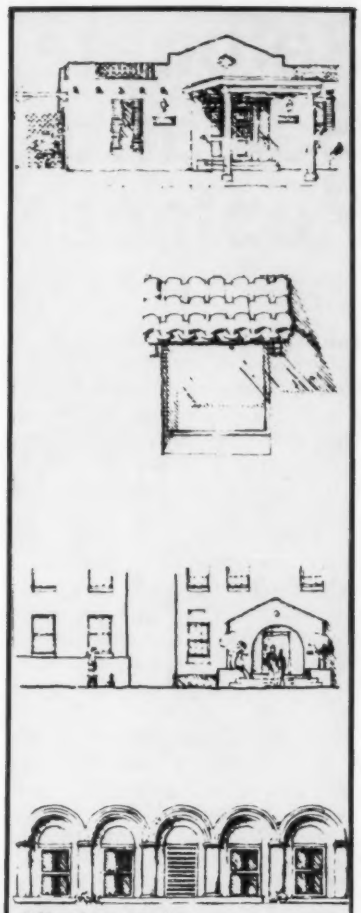
- Placing standards in the hands of designers to influence their actions as they worked on facilities affecting our bases, with a goal of utilization.
- Developing brochures, constituting small versions of the standards, to be used as introductory information. This allows for broader distribution, achieving greater awareness.
- Approving use of the standards on our bases by base facilities utilization boards.
- Base civil engineers giving information to incoming managers and leaders about the architectural compatibility program, especially important at the level of the air logistics center and base commander level.
- Amending regulations to instill official credibility for the standards.
- Incorporating statements in MCP and NAF projects which direct utiliza-

tion of the guidance and standards by designers.

- Providing visibility of the program to all people in the design process, a critical feature, requiring distribution of information and briefing presentations.
- Communicating with Air Force Regional Civil Engineers, the Corps of Engineers and base-level designers, all of whom play a significant role. These designers and design implementers need to have a thorough comprehension of the documents and of their importance. They must have adequate copies of materials for project reviews, and for distribution to each individual who becomes a part of the Air Force design effort.

The program requires a great deal of guidance and support from each level of the Air Force structure. Funding must be supported for A&E services. Command representatives must provide frequent support at bases when their architect-engineer selection and project review points are reached. Command-wide meetings of all base project managers are necessary. A great deal is gained by interchange among all base and command project managers, particularly at the 35 percent submittal stage.

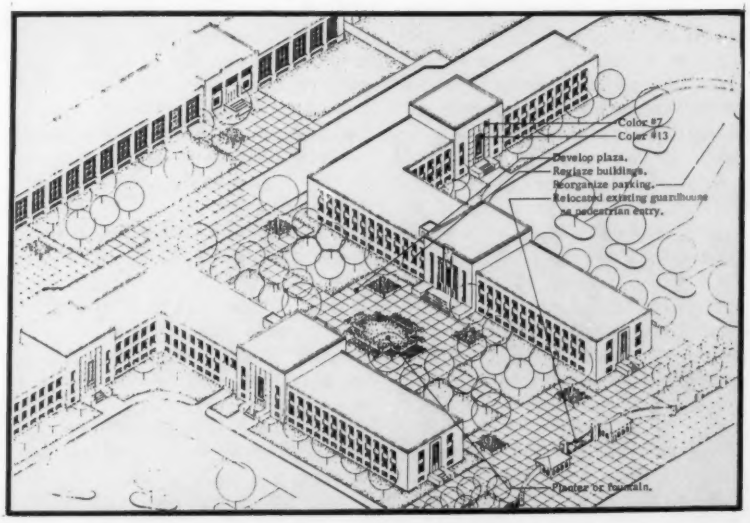
James R. Slager is the chief architect for the Air Force Logistics Command. He received his bachelor of Architecture degree from Ohio State University's College of Engineering. He has experience as chief of a design branch while an Air Force officer. He previously had his own architect-engineer practice and worked on base exchanges in six states. His private practice included being head of a housing construction company. He is registered in Ohio and with the National Council of Architectural Registration Boards, and is a member of the American Institute of Architects, the Architects Society of Ohio, and Society of American Military Engineers. He is a member of the Air Force Design Advisory Committee.



Mission style, secondary elements

What do we achieve? The program is certain to provide considerable improvements in our design awareness and the accomplishment of a more productive environment for our people. Among the results is gaining an investment of pride and care among our people, a tangible return in prevented maintenance, and occupant-provided enhancements. A higher quality of life will be achieved for our people. This quality of life attracts and helps us to retain quality people, vital to the success of the Air Force mission. We feel that the program is no luxury. It is needed, and is becoming a critical part of the design for the Air Force quality of life. The program can be implemented by the sincere, enthusiastic support of our design team. We already have examples of the program's success.

The program is financially a sound investment. Consistent, high-quality design ultimately saves money. Many have stated an obvious truth: "Good design does not cost more than poor design." In fact, quality design will save dollars in the long term as well as improve that critical quality of life for our people, in the outdoor environment, in the work place, and within the homes for those who live on our bases. It results in measures of satisfaction, productivity and retention of personnel in the Air Force family. We are planning for our people to be working and living in a far more harmonious, pleasant, practical environment, accomplishing productive pursuits.



PREFACE

I applaud and appreciate the efforts of Mr. Bob Stone and his people for the forward and innovative thinking that led to the establishment of the two programs discussed in this article. All too often we sit back and wait for things to happen — this is an example of making things happen! We should not only pursue these avenues as alternative means of providing much needed facilities around the world, but let them serve as examples of "getting out of the rut" and finding better ways to get the job done.

CLIFTON D. WRIGHT
Major General, USAF
Director of Engineering and Services

Relocate, Sell and Replace

by Steven N. Kleiman

Suppose you're a base commander or base engineer and you feel that relocation of certain functions would improve the efficiency and effectiveness of your organization.

To accomplish the relocation you need funding from headquarters to pay the up-front costs associated with design and construction of the project. A cost justification package is prepared, outlining the advantages of the project, the savings that will accrue, and the productivity enhancements that will result. Your headquarters reviews the proposal which is thrown in the pot with other very worthwhile projects to be considered for funding. Typically, your project competes for limited dollars and against some very high priorities and, as anticipated, your project is not funded. It looks as if it's "wait till next year" . . . but, maybe not.

In Defense Agencies, the outyear (and budget year if applicable) savings are plowed back to the Defense Relocation Program (DRP). This revolving, or rotating, fund concept (pay out up-front costs and gain back out-year savings) sustains the fund to pay for subsequent projects. Thus, the DRP is replenished by the savings and you get your new facility this year.

The DRP is the brainchild of the Installations people in the office of the Assistant Secretary of Defense (Manpower, Reserve Affairs and Logistics). For many years, Mr. Robert Stone, DASD for Installations, had seen good projects pushed aside because money wasn't there to get the project off the ground. By establishing a self-perpetuating fund, OSD ensured that money will be available to initiate worthwhile projects.

OSD looks for two things when evaluating the merits of funding a project with the DRP. The first is return on investment; will the savings generated by the project yield substantial savings over and above the one-time costs? In terms of savings, OSD is looking for real dollars such as reductions in operation and maintenance costs generated by personnel reductions. Savings attributable to reductions in heat, gas, electricity, and transportation are further examples of real dollar savings. A proposal may result in vacating leased space for military-owned space. The savings generated by that decision result in dollars that can be redistributed to other programs. Productivity improvements and improved employee morale are very important benefits but, unfortunately, they do not reflect firm dollars. Unless these benefits can be estimated and quantified by a dollar savings, they are not by themselves sufficient to warrant funding by the DRP.

The fiscal year 1984 DRP funded projects totalling $23 million. In fiscal year 1985 the Military Services submitted their projects for DRP funding at the same time the Program Objectives Memorandum (POM) was made final. An extensive comparative analysis was performed by the OSD staff. Of the 24 projects submitted (6-Navy, 10-Army, 8-Air Force), five projects totalling $75 million fully met the criteria for DRP financing.

The Air Force is using the DRP to provide construction funds for a new electrically controlled heating plant at Thule AB, Greenland. This $22 million project will allow existing, less efficient, operational plants to be placed on standby or completely closed. Energy consumption will be reduced by an estimated 16 percent and the number of personnel required to run the heating plant will be decreased by 21 spaces. Annual savings of $6.8 million in yearly O&M costs will permit the Defense Department to fully amortize the project in 3.2 years.

An excellent example of a relatively small project meeting the criteria and being approved for DRP funding is the Public Works shop conversion at Great Lakes, Ill. The Navy proposes to convert an existing building into a much-needed centralized shop area. The conversion, consolidation, and relocation of several smaller shops, inefficiently dispersed around the base, will cost $900,000. The Navy will

EDITOR'S NOTE:

"Old and not replaceable," should never be a facility classification unless there are historic considerations.

Too often, old, inefficient, marginally adequate facilities seem perpetuated in the inventory on military installations. Some represent costly eyesores, not conducive to occupant pride and investment of care, and are frequently impediments to productivity. Worse, some are fire and safety hazards, absorb an inordinate amount of repair money over the years, and constitute a constant drain on manpower resources.

Under a new program, initiated at the Department of Defense level, it is possible to economically justify the orderly placement of such facilities. This makes it possible to create productive, efficient, architecturally compatible facilities which offer lower life cycle cost. It opens the door to new state-of-the-art facilities features which save energy, money and manpower resources.

This article presents a new alternative for programming the replacement of facilities.

eliminate seven man-years of effort for a yearly savings of $320,000. These savings will permit the shop conversion to be fully amortized over 3.4 years.

These two projects exemplify what the DRP can do for you. In one instance, we have a complex major construction project that requires a large expenditure of money. The other project, by comparison, is relatively simple and significantly less costly; however, both projects are of equal importance, when viewed against the previously described DRP criteria, and both are approved for funding.

As the DRP becomes better known, the military services will find the account is an invaluable way to fund fast pay-back projects. There's another program that also rewards good managers.

The Congress adopted legislation that permits the Defense Department to sell real property under its control and use the proceeds from the sale to replace facilities that had to be relocated in order to sell the land. A management account administered by the Secretary of Defense has been established. At the request of the military services, the Secretary may propose the sale of any real property under the department's control. He can also recommend land acquisition, construction of replacement facilities, and relocations required to ensure the efficient and effective continuity of defense functions.

Let's see how this piece of legislation might work for you. Let's assume the county or municipality at which your base is located has undergone rapid urbanization. You now find that the golf course once nestled in the woods is now next to a brand new office park and shopping mall, making the golf course a very valuable piece of land. You'd love to move the golf course to a location on the other side of the base, but that would require approval to acquire additional real estate. With the Sell and Replace program, the golf course can be turned over to GSA to sell with the proceeds from the sale used to cover the costs of land acquisition and construction of replacement facilities — your ***new*** golf course. We sell land that has a very high market value and replace the facilities by purchasing land less desirable to developers and, therefore, less costly. The base winds up with a modern facility that meets the needs of our troops, the U.S. Treasury takes in some sorely needed cash, and the community and business interests are well-served.

The Sell and Replace concept can be adopted to meet a variety of requirements including construction. Sell and Replace and the DRP give the base commander and base engineer great latitude and flexibility in providing a more efficient and effective working and living environment. When you get right down to it — that's everyone 's job. Make the DRP and the Sell and Replace Program work for you by proposing projects now for FY 1986.

Steven N. Kleiman is a management analyst for the Deputy Assistant Secretary of Defense for Installations, responsible for the Defense Relocation and the Sell and Replace programs, among other initiatives. He was previously Planning and Management director, Defense Contract Administration Services Region, Atlanta. He holds the bachelor of arts in Economics from Queens College, City University of New York, and a master of science in Administration from the George Washington University, Washington, D.C.

Program in Brief

Seed Money:
FY 84 $50 Million
FY 84 $50 Million
FY 86 $36 Million

Actual Savings To Date: $20 Million

Program Share:
FY 84 USAF 55.7%
ARMY 14.3
NAVY 30
FY 84 USAF 29.2
ARMY 44.7
NAVY 26.1

Payback:
"We ask the services to give us projects which have a payback out of O&M."

Program links overall real savings to facilities; provides services with an alternative; ultimately comes from an adjustment to the MCP; provides overall savings from O&M.

Savings are "re-invested" in other high-yield projects.

TLFs Make Moving Less Costly

by Lt. Col. David F. Honeycutt

The chances to save money on a PCS move will get better over the next few years as the Air Force builds almost 1,100 more temporary lodging facilities (TLFs).

Construction is already complete on more than 200 new TLF units, with almost 700 more funded and under construction, design or awaiting approval. Another 340 units are programmed for FY 86 through FY 88 as part of a 6-year, $53 million construction and furnishing program for new TLFs. Money comes from the Air Force Welfare Fund. The loans are repaid with a portion of the service charges from all TLFs worldwide.

Almost 4,000 facilities will be operating around the world when all the construction is approved, funded and finished. These units exist primarily to reduce hardships and inconveniences for AF people on PCS moves and for relatives who visit patients in Air Force hospitals. We now have about 2,800 units available, and service charges average $15 per night in the CONUS or overseas. That can save a lot of money.

Air Force allows a maximum 30-day stay for people arriving at a new base, seven days maximum for those leaving, and may provide for up to a 20-day stay for relatives visiting a patient at an AF hospital. Maximum occupancy for those on leave, TDY, or delay enroute is 10 days.

Assignments to TLFs are made without regard to rank or grade. Reservations are confirmed on a first-come, first-served basis. However, top priority is given to active-duty military personnel and their dependents or unaccompanied dependents on a PCS move. Also eligible are unaccompanied military people. Those visiting hospital patients may be accomodated on a space available basis. In some cases, even friends of patients are eligible to stay in the TLFs.

These facilities are used heavily and the intense utilization is basically the reason we're building more of them. However, some AF people aren't taking maximum advantage of this money-saving benefit.

A recent survey of TLF utilization indicated heavy usage by officers and senior NCOs, but revealed less intense participation by middle-ranking enlisted people. This is partly because experience is the best teacher. Those with a lot of PCS moves under their belts are familiar with the benefits available. Those with little moving experience need others to tell them what's available. Some people don't know they can make reservations as far ahead as 60 days in advance at a TLF to make sure they have a place to stay. The TLFs are on the base, convenient to work, shopping, hospitals, child care centers, and recreation facilities.

Most TLFs offer one or more bedrooms, a private bath, kitchens, color televisions, and living or dining rooms in each unit . TLFs operate much like civilian motels or hotels, and offer daily maid service, laundry facilities, food and beverage vending machines, and other conveniences expected at commercial lodging facilities.

All AF people should take advantage of what we have now and what we will have in the future. The only way they can is if they know about it. Supervisors and those briefing or sponsoring those in PCS status, coming in or going out, should make sure they know about TLFs. It's a shame to find out about an opportunity to save money when it's too late.

Lt. Col. David F. Honeycutt is chief of the Services division, Headquarters Tactical Air Command, Langley AFB, Va. He previously was assigned to the Directorate of Housing and Services, HQ AFESC, Tyndall AFB, Fla., as chief of the Unaccompanied Personnel Housing Branch. Previously he was chief of services and commander of the 48th Services Squadron, RAF Lakenheath, United Kingdom. He graduated from the University of North Carolina in 1966 with a bachelor of science degree in Marketing. He entered the Air Force through the Officer Training School program. He is a graduate of Squadron Officers' School and Air Command and Staff College.

tecnotes

AIR FORCE INDUSTRIAL WATER CHECK-ANALYSIS PROGRAM — To help base-level personnel better manage their industrial water treatment program, starting Oct. 1 HQ AFESC will initiate a new approach to check-analysis testing of water samples for boilers, cooling towers, and other industrial uses. The purpose of this program is to give each base information to verify its in-plant test procedures and reagent quality. Under the new approach, a commercial laboratory under contract to HQ AFESC will prepare water samples representative of typical water systems and send them to AF installations three times a year. The base water analyst will run the indicated tests, complete the enclosed forms, and return the sample to the commercial laboratory. On receipt of the base's test results, the commercial laboratory will send the correct analysis to the base for comparison analysis and indicate the corrective action, if required. The commercial laboratory will also distribute chemical reagents and most laboratory equipment/supplies required for base-level testing. (HQ AFESC/DEMM, Mr. Myers, AUTOVON 970-6355)

FIRE-FIGHTER CHEMICAL WARFARE GARMENTS — A prototype chemical defense undergarment has been selected for chemical agent challenge testing beginning in December. The prototype garment is constructed of a lightweight (2-pound) knit fabric impregnated with charcoal. Physiological tests at the School of Aerospace Medicine show that the garment will add no additional physical or thermal stress to the fire fighter. The undergarment will be worn under current proximity clothing to complete the fire-fighter chemical defense ensemble. (HQ AFESC/RDCS, Capt. Walker, AUTOVON 970-6282)

MOS SELECTION PROCEDURES — Simpler, straightforward multiple-aircraft Minimum Operating Strip (MOS) selection procedures using surface roughness criteria have been developed for F-4, A-10, F-15, F-16, C-130 and C-141 aircraft. These procedures will be available for review and comment, by the early Fall in USAFE, and at other locations shortly thereafter. (HQ AFESC/RDCR, Lt. Kirkland, AUTOVON 970-6317)

SALTY DEMO is the project name for the construction of an 8,100-foot alternate surface and runway test section in Europe. Work has begun at Spangdahlem AB, Germany. The alternate surface consists of asphalt over crushed stone. A 2,000-foot concrete and asphalt runway test section is included for use in demonstrating Rapid Runway Repair procedures. Test data collected from the construction and demonstration will be used to validate RRR techniques now under development. (HQ AFESC/RDCR, Mr. Strickland, AUTOVON 970-6327)

NEW PAVING PUBLICATIONS — AFM 88-6, Ch. 6, ***Pavement Recycling***, is now available to the field. The new chapter was published with a date of March 19. Change 4 to AFR 88-16, ***Standards for Marking Airfields***, was published in January and is now available to the field. Ch. 8, AFM 88-6, ***Standard Guide Specifications***, requires either a wire comb finish or a burlap drag finish with grooving on new Portland cement concrete runways. (AFESC/DEMP, Maj. Schauz, AUTOVON 970-6334)

PAINT BUILDUP — Field tests show paint buildup has caused bouncing of tailhooks on the F-16 which could lead to disengagement of the arresting barrier cable. This could possibly be the case for other aircraft as well. Remedial measures should be taken to assure that paint does not build up within 30 feet of the barrier cable. (HQ AFESC/DEMP, Mr. Greene, AUTOVON 970-6334)

HVAC — A new regulation is being developed concerning operation and maintenance of HVAC control systems. To assist base OJT efforts, a self-study guide will be included as an appendix. The guide will contain plans for training aids and hands-on exercises for use with the aids. The regulation (AFR 91-39) is planned for publication this winter. (HQ AFESC/DEMM, Mr. Wilson, AUTOVON 970-6480)

MAKING WAVES — Annual damage to Air Force electrical and electronic equipment, caused by "spikes," surges and sags in power levels runs into the millions of dollars. One way of controlling these problems is a "wave conditioner." Liebert Corporation of Columbus, Ohio, manufactures a power line conditioner which they call a power management center. The device is essentially a magnetic synthesizer which uses a saturated transformer action to produce a square wave. The square wave is then shaped into a sine wave by a series of capacitors. Reports from AF users indicate excellent results with little or no maintenance. Liebert's telephone number is (614) 888-0246. This is for information only, and does not constitute endorsement by the U.S. Air Force. (HQ AFESC/DEMM, Mr. Fowler, AUTOVON 970-6480)

Instead of the shotgun tasking message, there is . . .

a better way

by Capt. David Estill and CMSgt. Paul Bellapianta

All MAJCOMs with military personnel have experienced increased support to exercises in recent years; furthermore, we can anticipate future support will be even greater. It's tough trying to decide who should go and ensuring equity in tasking among bases. With the large mobility commitments in TAC, this is a complex job. The MAJCOM Mobility Readiness Section uses a highly personalized method to select bases to support exercises. Personalized service results in a strong sense of teamwork between services squadrons and the Housing and Services directorate.

It is difficult to understand the task of providing personalized service on such a large scale without first understanding how big the exercise business really is. In FY 83 there was a major upswing in the number of man-days required to support exercises and contingencies worldwide. As an example, TAC provided 29 percent more man-days of real-world and exercise support in FY 83 than in FY 82. This included 12 Joint Chiefs of Staff (JCS)- and 17 MAJCOM-generated exercises as well as four real-world contingencies. Over 450 Services people were deployed. Most of these exercises were conducted outside the CONUS.

Prime RIBS teams deploy and operate at four basic types of locations. One of the most common is the collocated operating base (COB) where NATO forces have an established air base. They also operate from main operating bases (MOBs), where U.S. forces are permanently stationed. The limited base (LB) is an air base in caretaker status and presents its own set of problems because there is no day-to-day operation. The most challenging of the four types of locations is the bare base (BB) whose only facilities are a runway and a source of water. Bare base locations are supported by deploying field-feeding equipment from the Harvest Eagle kits stored at Robins AFB, Ga, Camp Darby, Italy, or Kim Hae AB, Korea.

The typical exercise lasts about 20 days. However, this usually results in a 30-day deployment for Prime RIBS teams because team members are required to be on site several days before and after the actual exercise. Further, three or more days of travel time in each direction is not uncommon for most Asian and some European destinations. This, too, adds to the time away from home.

Air Force Services' heavy involvement in exercises can be explained in one word — readiness. Peacetime deployments to selected overseas bases provide realistic training and familiarization with an allied nation's operating environment. There is no substitute for firsthand experience when it comes to dealing with host-nation language, customs, and logistics complications. Operating in host-nation facilities with unfamiliar equipment can be a real challenge. Training in this environment is the best way for Services personnel to prepare for support of actual combat operations.

DOD has established unified commands to conduct joint service military operations based on geographic locations. Tasked MAJCOMs provide operational and staff support to several of these, including U.S. Central Command (USCENTCOM — Southwest Asia), Atlantic Command (LANTCOM — Atlantic Ocean and Caribbean Sea), U.S. Southern Command (USSOUTHCOM — Central America) and U.S. Readiness Command (USREDCOM — CONUS).

Select MAJCOMs have additional 622XO and 611XO manning authorizations because of extensive exercise participation. These additional slots, known as mobility additives, are distributed to bases throughout the Air Force.

Contrary to popular belief, MAJCOMs don't use a dart board to select Services units to provide personnel for exercises and contingencies. The actual selection of bases to provide Services personnel is done in a very personalized manner by the MAJCOM Mobility Readiness Section. As an example, in TAC, the section superintendent, who also serves as the HQ TAC Prime RIBS NCOIC, is responsible for selecting the units best able to support the exercise with trained personnel. He draws upon military experience and knowledge of Services to match deployment requirements with the best possible personnel.

The other part of the Readiness team is the base-level Prime RIBS Readiness Section. The section is OPR for all readiness issues affecting the squadron . These dedicated personnel play a critical role in the wartime mission of the squadron.

Selecting the bases (also known as sourcing) starts with a tasking letter from the MAJCOM office of the deputy chief of staff for Manpower and Personnel to the Mobility Readiness Section. The letter identifies the exercise name and location; the number of each AFSC and skill level required, date required, deployment length and any special qualifications required, such as a government driver's license.

First, the section superintendent reviews the requirements to see if both the number of people requested and the job they are to perform are valid. Requests for excessive personnel or requests for personnel solely to perform KP and bay orderly duties are identified to the requesting agency as an apparent excess to exercise needs. The requesting agency and

superintendent discuss any apparent excesses and agree on the valid exercise requirement.

The next step in sourcing is a review of each base's Services manning. This is the preliminary step in determining which bases are best able to provide the required personnel. A monthly personnel availability chart that includes manning information for each base is prepared in conjunction with the Prime RIBS Readiness Section (PRRS) at each Services squadron. The chart reflects the number of Food Service personnel authorized and assigned, and the number of mobility additives authorized. In addition, the number of personnel actually available for duty is recorded. This figure takes into account those personnel not available because of hospitalization, enrollment in PME and Prime RIBS courses, pending disciplinary action, etc. Those bases with less than 75 percent of their personnel available for duty (not including mobility additives) are not considered for tasking. This unique consideration of the specific manning circumstances in each squadron develops a strong rapport between the command Mobility Readiness Section and the squadrons.

After the preliminary review, the superintendent considers each unit's past exercise tasking to see which unit's "turn is up" to provide personnel, and also which bases are closest to the exercise site.

The most important step is next. The superintendent contacts the PRRS at each of the bases to see if that unit's particular circumstances will permit it to provide the required personnel. No unit is ever tasked without being consulted. Lastly, the MAJCOM Manpower and Personnel shop is given a list of bases to task for each person required. They, in turn, task the appropriate base CBPO, which normally tasks the unit. It is up to the unit to select the specific personnel who will deploy. Exceptions are officers and senior NCOs who are tasked by name, based on their supervisor's recommendation, because of the important positions they fill. Any requirement that cannot be filled without reducing base present facility manning below 75 percent, is referred to other commands, via AFMPC, under the Palace Trip program, with sourcing done by AFESC.

This procedure for selecting bases provides the greatest flexibility and the most advance notice possible. The system works well, largely as a result of the professionalism of the base-level PRRS. Bases that have more than 75 percent of their authorized personnel available for duty are almost always willing to support exercise requirements. Units that have other commitments scheduled during exercise dates such as local exercises or heavy training schedules are not tasked for as many people. These units pick up their share of the taskings during other exercises.

The inclusion of Services in the JCS Unit Rating System (UNITREP) by AFESC last year also resulted in an increased number of units volunteering to support exercises. Under the UNITREP system guidelines, it is impossible to achieve a satisfactory rating for the unit until a large percentage of Prime RIBS personnel have attended the Prime RIBS formal training schools at either Eglin AFB or Ramstein AB. However, AFR 55-15 allows units to substitute participation in a 3-day field exercise using field equipment at their home station or during a TAC deployment for the formal training requirement under UNITREP. This means that a lot of units which can't get as many quotas for formal training as they would like are volunteering for exercises to help improve their UNITREP C-rating.

Although the phone exercise sourcing procedure works well, it is not totally without challenges. The most common problems are short-notice requirements, overlapping exercises, requests for excessive personnel, and requests for personnel just to perform details like mess attendant or police-up duty.

Short-notice requirements occasionally result from real-world contingencies but are generally the result of poor exercise planning. A recurring problem in this area is the mistaken assumption by exercise planners that Services personnel can simultaneously operate home-base facilities while deploying a large contingent of personnel overseas with a flying squadron. The Chief of Services frequently doesn't find out that both are expected until 2 or 3 weeks before deployment. The end result is that other bases are tasked to deploy their personnel overseas as augmentees with a few days notice. This creates a severe hardship for both the other bases and the augmentees because it disrupts leave and work schedules, as well as personal plans. For this reason, it is essential that Services personnel work closely with wing-level personnel to ensure that augmentees are requested through the CBPO well in advance of the requirement.

For the Prime RIBS program to be successful, the Command takes a highly personalized approach in selecting bases for exercise support. Our approach ensures that the individual circumstances of each Services squadron are considered before tasking. This personalized service strengthens the sense of teamwork that must exist between MAJCOMs and the Services squadrons. That's how Services folks in the Air Force do it!

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The new Prime BEEF Mobility Team Structure

A FLEXIBLE APPROACH

by Maj. Robert J. Bittner

By now all base civil engineering units should be well on the way toward full implementation of the new Prime BEEF team structure. This article will discuss reasons why a new team structure was required, considerations given during the development of the teams, and details of the team structure.

Background for Change

The old CF-team structure had some major problems in satisfying projected wartime requirements; namely, it was not adaptable to:

- Expanded rapid runway repair (RRR) manning requirements;
- Southwest Asia (SWA) bare base operations; and
- AFSC-specific wartime requirements in other theaters.

The old structure was not adaptable to equipment operator requirements for the expanded RRR capability. Scheduled for implementation over the next few years at a number of theater locations, the new RRR approach adds 20 pieces of heavy equipment to the basic RRR set. This is to expand runway repair capability to three large (20-foot-plus) craters, three small craters, and up to 400 spalls within a 4-hour time criterion. (A spall is pavement damage that does not penetrate through the bottom surface of the concrete.) Crater repairs would be covered with either AM-2, fiberglass mats, or concrete slabs. Spalls would be repaired with Silikal® .

Using AM-2 matting, a total of 146 engineers are now required. This includes 30 experienced heavy equipment operators. Other specific AFSCs are required for command and control, field supervision, selection of the minimum operating strip (MOS), and spall repairs. A general labor force of available engineers will also be required for covering the craters and other duties. A new team structure was required for providing the correct distribution of AFSCs for the expanded RRR capability and to be adaptable to new technology including fiberglass mats, concrete slabs, and anticipated changes in RRR technology and equipment.

The CF-team structure was not easily adaptable to increased SWA bare base requirements because it did not provide the proper mix of required engineering skills. For example, the utility trades are particularly critical to Harvest Eagle and Harvest Bare operations, but the CF-structure did not provide teams with a dedicated utility capability. Significant airlift and base support limitations are expected to constrain the size of the manpower package in any deployment to SWA, so Prime BEEF forces cannot afford to deploy with anything but the right mix of civil engineers. To support rapid deployment forces, optimum results are expected. A team structure with various utility team options was thus required for bare base operations.

Finally, the CF-team structure did not provide the required flexibility for matching AFSC-specific manning requirements in other theaters. Through computer analysis, theater planners can now pinpoint their wartime planning needs by AFSC at each deployment location based upon projected force beddown, damage repair, and O&M requirements. The deployment planners should then be able to identify Prime BEEF teams that closely resemble theater manning requirements, but under the old CF-team structure this was unlikely. For example, if a location required the operation or repair of a number of mission-critical boiler plants, theaters could only obtain the requisite number of Prime BEEF heating specialists by calling for entire CF-2 or CF-3 teams.

OVERVIEW OF RESTRUCTURED PRIME BEEF TEAMS

CORE TEAMS				SPECIALTY TEAMS	
MANAGEMENT		BASIC OPERATIONS		SPECIALIZED OPERATIONS	
PB-1:	Engineer Management	PB-2:	Basic Support	PB-9:	Officer
		PB-3:	Limited Support	PB-10:	Engineer Assistant
		PB-4:	RRR Operators	PB-11:	Production Control
				PB-12:	Interior Electric
				PB-13:	Exterior Electric
				PB-14:	Power Production
				PB-15:	Refrigeration
				PB-16:	Liquid Fuels
				PB-17:	Heating
				PB-18:	Controls
				PB-19:	Pavements
				PB-20:	Const. Equipment
				PB-21:	Carpenter
				PB-22:	Mason
				PB-23:	Metals
				PB-24:	Plumbing
				PB-25:	Entomology
				PB-26:	Environmental Support
PB-6:	Fire Protection Management	PB-7:	Fire Protection Operations	PB-8:	Limited Fire protection Operations

To highlight this problem, because the CF-team capabilities frequently did not match mission requirements or deployment constraints, the standard teams were seldom used for peacetime exercises. More simply put, we were not training as we planned to fight. The old teams either had to be substantially modified, or a special team was configured. While in peacetime there may be ample time to tailor a special package of AFSCs, in a major conflict with multiple taskings and short notice, there probably will not be time to assemble a special force. Furthermore, to enhance readiness capability, Prime BEEF forces should train in peacetime with the same structure that they will use in wartime. Smaller, task-oriented teams would satisfy a full range of operations requiring specific AFSCs at a multitude of theater locations and in various contingency situations.

Another problem with the old CF structure was that the small number of relatively large teams did not provide the flexibility needed for assigning all CONUS civil engineers available in peacetime to team positions of a matching AFSC. As a result, many active duty engineers were either mismatched into any vacant position on a team, or not assigned to any mobility team position. The mismatched personnel were "false advertising." For example, while theaters were expecting CF-1 teams with 11 qualified equipment operators, in many cases they might receive CF-1 teams with plumbers and painters assigned to operate heavy equipment. Acceptable with the basic RRR set, this is totally unacceptable under the revised RRR concept in which well-qualified heavy equipment operators pilot specialized heavy equipment in confined areas, possibly even near unexploded ordinance.

The untasked engineers posed an even greater problem. Analyses of potential wartime requirements in all theaters indicate a significant shortage of civil engineers, even with the sizable number of Air National Guard and Air Force Reserve Prime BEEF personnel who will be available in time of major conflict. Earlier this year there were more than 4,000 untasked military civil engineers. Included were a number of firefighters who could not be assigned to teams because of the requirements for AFSCs and quantities on the CF-5 and -6 teams. With the projected wartime shortfall of all engineers, this situation could not continue. A new structure was required that would allow all engineers to be assigned to teams in the specialty for which they were trained.

Southwest Asia Bare Base

TEAM TYPE		NO. TEAMS	NO. PERSONNEL
PB-1	ENGR. MGMT.	1	13
PB-2	BASIC SUPPORT	1	45
PB-3	LIMITED SUPPORT	3	75
PB-4	EQUIP. OPERATORS	3	36
PB-6	FIRE PROT. MGMT.	2	6
PB-7	FIRE PROT. OPS.	2	24
PB-8	LIMITED FIRE OPS.	4	12
PB-13	EXTERIOR ELECT.	2	6
PB-14	POWER PRODUCTION	3	9
PB-18	REFRIGERATION	1	3
PB-24	PLUMBING	2	6
PB-26	ENVIRON. SUPPORT	2	6
TOTAL		26	241

NOTE: THE SIZE OF THE PRIME BEEF AUGMENTATION FORCE AT BARE BASE LOCATIONS IS DETERMINED BY PROJECTED BEDDOWN POPULATION AND RRR THREAT.

Goals for Restructuring

Two major goals were established for development of the new team concept. The team structure should provide:

- A flexible employment concept so teams can be logically selected in building-block fashion to meet a full range of potential contingency requirements in peacetime, as well as in wartime.
- The ability to assign all military civil engineering personnel not filling wartime-required positions in the CONUS to mobility team positions calling for the AFSC for which they were trained.

Impact of Team Structure

The manpower composition of each team, commonly called a UTC (unit type code), affects a multitude of readiness issues. How the AFSCs are combined on teams obviously has a direct bearing on the mission capability of the team. While the UTC is primarily used in deployment planning documents and operation plans for identifying manning requirements and tasking forces, they also drive:

- Equipment and training requirements
- Load planning
- Funding of additional military positions to make up for wartime-driven shortfalls, and
- Peacetime management of Prime BEEF personnel.

Under the revised team structure CONUS units would be tasked to provide teams based upon authorizations reflected in their unit manning document (UMD). All Prime BEEF teams could then fully satisfy "advertised" mission capability in meeting theater requirements. All CONUS civil engineering units would also be capable of attaining a C-1 rating for personnel under the UNITREP readiness reporting system. Personnel shortages would be highlighted through the UNITREP system for resolution within personnel channels, and wartime manpower shortages would be highlighted through annual Air Force analyses of wartime manpower requirements.

Alternative Team Structures

There were a number of alternatives for structuring a revised Prime BEEF team concept in meeting the restructuring goals. The only restriction was that a standardized package of teams needed to be created. Contingency planning guidance, as spelled out by Joint Chiefs of Staff and Air Force directives, required that each

UTC must have standard manpower and equipment characteristics. For each UTC, the specified manpower (listed by AFSC) and equipment (listed by item) must satisfy a well-defined mission capability statement. The standardization is required so that theater and exercise planners can match a team's capability to the specific contingency work task, and so that logistics planners can know exact shipment requirements for the deploying UTCs.

The restructuring alternatives were to create the proper number of large and small standardized teams necessary to meet the stated goals. Large numbers of teams of varying size provide for greater flexibility, but they also create confusion for planners and contribute to peacetime management problems. The key was to provide for the requisite flexibility without creating too many teams for practical use.

The restructuring problem was complicated by the large number of different specialty areas within the civil engineering career field. Even with the civilianization of the painter and resource management specialties, there are still 17 different enlisted specialties fulfilling critical wartime functions, all of which should have positions on mobility teams. The CF-team structure did not provide enough tasking flexibility. Excluding fire protection requirements, the CF-structure had only three teams for all the remaining base-level engineering specialties. This was insufficient. Some other Air Force functional areas have more than 100 teams. Even within E&S, the services career field requires eight teams to ensure the effective taskings of their two enlisted specialties.

To compound the problem, a review of existing peacetime military authorizations by AFSC revealed that no two active duty CONUS engineering units had the same mix of people and AFSCs. There was a wide variance in the military AFSC distribution between the bases. In many units some specialties were either all civilian, contracted out, or totally committed to wartime requirements in the CONUS. It was not unreasonable to conclude that more types of Prime BEEF teams were warranted to gain the desired flexibility for meeting potential contingency requirements within the constraints of peacetime manpower availability.

New Team Structure

The revised team structure provides core teams similar in form, but generally smaller in size than the old CF-teams. The "core" teams provide a basic foundation for base civil engineering contingency operations encompassing force beddown, utilizing both existing and expedient facilities; damage repair, including any RRR approach; and operations and maintenance, focusing on critical utility systems. The core teams are used for augmenting existing civil engineering functions, such as at main operating bases (MOBs), or for establishing base civil engineering operations where none previously existed, such as at bare bases. A relatively large number of "specialty" teams provide personnel from each of the civil engineering specialties for satisfying expanded contingency tasks. These teams augment existing civil engineering operations or the core teams to provide the requisite capability for meeting AFSC-specific requirements.

Complete details on all the new teams are included in the revised AFR 93-3. A brief description of each team follows:

- **PB-1 BASE ENGINEER MANAGEMENT TEAM:** A 13-person team providing senior-level BCE management at COBs or bare bases, or middle- management augmentation at large MOBs.
- **PB-2 BASIC SUPPORT TEAM:** A 45-person team providing a full range of engineering specialties as a basic facility support element; has stand-alone support capability at a 550-person Harvest Eagle-type encampment; provides select AFSCs and labor augmentation for RRR operations; and includes a team tool kit.
- **PB-3 LIMITED SUPPORT TEAM:** A 25-person team providing a range of lower skill level engineering specialties; augments existing BCE operations or the PB-2 team for ex-

APPLICATION OF PB-TEAMS TO CURRENT RRR CONCEPTS

Basic RRR Set

TEAMS REQ'D	TOTAL MANNING	EQUIPMENT OPERATORS
PB-2 (1 EA)	45	2
PB-3 (1 EA)	25	2
PB-4 (1 EA)	12	8
PB-19 (2 EA)	6	-
TOTAL	98	12

Supplemented RRR Set

TEAMS REQ'D	TOTAL MANNING	EQUIPMENT OPERATORS
PB-2 (1 EA)	45	2
PB-3 (2 EA)	50	4
PB-4 (3 EA)	36	24
ANY SPECIALTY TEAM (5 EA)	15	-
TOTAL	146	30

NOTE: FOR BOTH BASIC AND SUPPLEMENTED RRR OPERATIONS, PERSONNEL WITH THE PAVEMENTS AND SOME OTHER AFSCs WILL BE REQUIRED TO OPERATE SOME PIECES OF VEHICULAR EQUIPMENT.

panded operations; can provide full O&M support at a 275-person Harvest Eagle encampment; augments the RRR effort; and includes a team tool kit.

• **PB-4 RRR EQUIPMENT OPERATOR TEAM:** A 12-person team of pavements and equipment operator personnel used as heavy equipment operators during beddown and damage repair operations, including RRR. For expanded RRR capability using the supplemental vehicle set, three PB-4 teams are combined with one PB-2, two PB-3 and any five specialty teams to provide the required RRR manning.

• **PB-6 FIRE PROTECTION MANAGEMENT TEAM:** A three-person team (equivalent to the old CF-6 team) providing fire suppression/crash rescue command and control at COBs and bare bases.

• **PB-7 FIRE PROTECTION OPERATIONS TEAM:** A 12-person team (similar to the old CF-5 team) providing expanded fire suppression/crash rescue operations at existing fire departments; or augments the PB-6 team in establishing a fire department at a COB or bare base.

• **PB-8 THROUGH PB-26 SPECIALTY TEAMS:** Three-person teams from each engineering specialty (including officers and fire fighters, but excluding painters and resource managers), providing task-specific augmentation to core teams or existing BCE operations; and tasked in combination with core teams or other specialty teams.

The designation PB-5 is reserved for a possible future core team. There is a variable sized PB-XX Follow-On Support Team, manned by the limited number of military civil engineering personnel who are temporarily unattached to a PB team or not part of a strategic withholding requirement. Although not equipped, these personnel must receive home-station training so that they can serve as replacements or fillers when PB team vacancies occur.

Elimination of the CF-team structure caused the old CF-4 team to be redesignated as the S-1 Staff Augmentation Team. It will be manned from MAJCOM headquarters' staffs and air reserve forces. A smaller staff augmentation team is planned next year. Additionally, a new staff augmentation team to be manned by the Air National Guard was created for managing the European Command's Regional Wartime Construction Manager (RWCM) staff in the United Kingdom.

Advantages of the New Structure

The foremost advantages of the PB-team structure are that it:

• Provides for the best match of Prime BEEF forces against projected wartime requirements at specific sites.

• Is adaptable to the various RRR concepts. (As more heavy equipment is added to RRR operations in future years, additional PB-4 and PB-20 equipment operator teams will be included in the RRR manning requirements.)

• Allows many more wartime-critical engineering personnel to be assigned to mobility teams, and all with an exact match in their specialty area. (Since the AFSC mismatch has been eliminated, all civil engineering units should be C-1 attainable.)

Untasked engineers will primarily be painters and resource management personnel who have not yet completed cross-training. As members of the PB-XX team, they will be trained to serve as fillers for deployment during a major conflict — the only time a mismatch is acceptable. For limited requirements, such as for exercises, team vacancies will be filled by personnel from other teams or bases prior to deployment.

The standardized package of teams enhances the theater planner's job of matching available Prime BEEF teams to theater requirements. Each theater has been provided guidance on how to best identify the minimum UTC requirements at each location. MAJCOMs will select units for taskings at each theater location to maximize unit integrity and minimize potential deployment problems.

The new PB-structure will also be very effective for the force programming of critical AFSC shortfalls. During annual Wartime Manpower Re-

TYPICAL WARTIME AUGMENTATION

Main Operating Base (MOB)

TEAM TYPE	NO. TEAMS	NO. PERSONNEL
PB-2 BASIC SUPPORT	1	45
PB-3 LIMITED SUPPORT	2	50
PB-4 EQUIP. OPERATORS	3	36
PB-7 FIRE PROT. OPS.	2	24
SPECIALTY TEAMS	32	96
TOTAL	40	250

Collacated Operating Base (COB

Team Type	No. Teams	No. Personnel
PB-1 ENGR. MGMT.	1	13
PB-2 BASIC SUPPORT	1	45
PB-3 LIMITED SUPPORT	2	50
PB-4 EQUIP OPERATORS	1	12
PB-6 FIRE PROT. MGMT.	1	3
PB-7 FIRE PROT. OPS.	2	24
SPECIALTY TEAMS	31	93
TOTAL	39	220

NOTE: THE TOTAL SIZE OF THE PRIME BEEF AUGMENTATION FORCE AND TYPE OF SPECIALTY TEAMS ARE DETERMINED BY PROJECTED FACILITY REQUIREMENTS, RRR REQUIREMENT, AND INPLACE MANNING AT EACH LOCATION.

quirements (MANREQ) and Support Force Sizing (FORSIZE) exercises, the planners can identify specialty team shortages for Air Force Program Objectives Memorandum (POM) initiatives. While the climate has not been good for obtaining additional active-duty engineer authorizations, POM actions for increased reserve force manning have been encouraging.

Implementation

To implement the new structure a number of actions were required. AFR 93-3 and AFP 93-7 for the management of the Prime BEEF program were substantially revised. Detailed manpower and mobility equipment information was created for inclusion in the Contingency Operation/Mobility Planning and Execution System (COMPES). The Table of Allowances (TA 429) was updated to reflect the composition of the equipment kits for the PB-2 and PB-3 teams. Civil engineering guidance included in AFR 55-15 on UNITREP procedures was modified to accomodate the new PB-teams.

Improved readiness capability will not be automatic. Each base must effectively manage its core and specialized teams in peacetime. The total personnel packages with their individual and team equipment requirements and training commitments must be closely monitored. This effort will be greatly assisted by the availability of the readiness management packages being developed in the base-level work information management system (WIMS).

While personnel can be assigned easily to positions on the new teams, many other base-level actions cannot be so readily accomplished. Although a limited amount of additional mobility equipment will be required at each base, all existing and added equipment items must be repackaged for individual team deployment. With the revision of the COMPES data, each PB-team will have a cargo package for load-plan preparation. Prime BEEF managers must ensure that all cargo planning is complete. The revised AFP 93-7 and the new COMPES information should assist in this effort.

Since the personnel added to mobility teams should have already been receiving home-station training, restructuring should not backlog the overall Prime BEEF training program, but AFR 93-3 now more clearly explains these requirements. Until the AFESC OL-E training cadre at Eglin AFB, Field 4, can obtain the supplemental RRR vehicles, AFESC-conducted training will continue under the basic RRR concept, but with advanced repair concepts also being taught. Through FY 85, civil engineering units will deploy to the AFESC Field 4 training site with a 95-person team composed of one each PB-1, PB-2, PB-3, and PB-4 teams. In some cases more than one unit will be required to fill the 95-person training quota. Some AFSC flexibility will be allowable, but the PB-4 manning is critical. Equipment operators must be given every opportunity to train on RRR vehicles generally not available at most bases.

Since the cycle for revising theater planning documents takes approximately 18 months to complete, the new PB-teams will most likely not appear in updated TPFDLs (Time Phased Force Deployment Lists) until 1985. Hence, while civil engineering units will be structured in PB-teams, existing TPFDL taskings will reflect CF-teams. Theaters and CONUS MAJCOMs have been provided tables for converting a CF-team tasking into an approximately equivalent PB-team capability.

Much work has already been done to ready the restructured civil engineering mobility forces for potential deployment. However, continued action is needed to ensure that the many facets of mobility planning are fully updated so that the PB-teams can be totally prepared. Thorough advance planning and preparation is required for any team structure to work effectively.

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CESMET tips

MATERIAL CONTROL —

As we all know, residue is one of our first and best sources of materials. However, it is an area that requires constant attention. Adequate nomenclatures are a ***must***. Shop chiefs need full descriptions before they are able to determine if an item is usable. For example, nomenclature ***door, wood***, is not sufficient. The nomenclature should contain a full description of the item (i.e., ***door, wood 5′ × 6′ × 3″ thick***). CESMET has seen this pay off time and again. Take a few extra minutes and program as much information as you can get into the computer. Those few minutes can save dollars and above all, provide quick, responsive customer service. "Work smarter, not harder."

With DoD's emphasis on fraud, waste and abuse, and care and control of government property it is essential that our Materiel Controls proctice good appliance management. Over 90 percent of the bases CESMET has visited during the past year have had problems in this area. As examples:

- Accountability and storage facilities are often inadequate;
- Comingling of dormitory and housing appliances has resulted in confusion as to what belongs to who and where it goes;
- In many instances there is no tracking system used to readily account for serviceable, reparable items on order, items awaiting disposition, etc.
- In most cases inventory balances do not agree with on-hand assets.

We encourage each Material Control to develop some sort of appliance accounting procedure. This is often no more than a locally developed form depicting nonmenclature, quantity authorized, quantity on hand, quantity on order, etc. This is an easy and simple way to keep up with your assets. Use it! It can and will save you and your staff a lot of headaches if you are suddenly audited or inspected by the I.G. (HQ AFESC/DET, Lt. Col. Wyatt, AUTOVON 970-1111)

FY 84 YEAR-END BUY STRATEGY —

We are now in the last quarter of FY 84. If the past is any indication of the future, the probability of money becoming available during the month of September is a very real possibility. Now is the time to determine whether or not your FY 84 Year-end Buy Program is complete and ready to implement. During FY 84 you may have had to defer or cancel programs and planned procurements of supplies, equipment and services because of austere funding. You should look again at those cancelled and deferred items and develop a ***year-end buy program*** to take advantage of the late arrival of FY 84 funds.

At this point in the fiscal year there is sufficient lead time to establish memo equipment due-outs in the supply system if they are not already there. If you are not sure as to what can be coded memo in the Supply Computer, suggest you obtain May's issue of the Design Center "Selected Item Review" and read the article on page 14 regarding obligation of due-outs. There is also time to "dust-off" various improvement programs, such as furniture refurbishment and drapery replacement for which you have already initiated a plan.

Now is the time to look at those deferred CE services or miscellaneous contract services which can be negotiated and obligated on relatively short notice (i.e., carpet cleaning).

Civil Engineering and Services organizations should be ready this year and your base needs your help in two areas:

a. Identify excess money as soon as you can. Don't do close-outs (zeroing out your accounts as you approach the end of the fiscal year) at your level; it's a base effort.

b. Identify programs that you think will benefit the base, directly or indirectly. They should be valid, cost-effective projects that can be obligated quickly — supplies in the warehouse, contracts (large or small) etc.

The comptroller is usually the OPR. A laundry list of projects and cost estimates should be provided to the budget officer in early August. After the financial management board approves the list, the budget officer will individually suspense projects to ensure they are ready in time. Many of the suspenses will be short but your planning efforts will result in timely and effective purchases. A dollar missed now is gone and lost forever. (AFESC/DET, Maj. Ponsford, AUTOVON 970-6126)

The CESMET Team: Col. Mario (Ben) Ginnetti, HQ USAF/LEET; Lt. Col. John H. Wyatt, HQ AFESC/DET, team chief; Lt. Col. Dave Safrit, Maj. (Lt. Col. selectee) Dennis Flynn, Maj. Kim Wintner, Maj. Mike Ponsford, Capt. Ken Mandley, SMSgt. Eddie Woodard, CMSgt. Rodney Winningham, MSgt. (SMSgt. selectee) Tommy Campbell, all HQ AFESC/DET.

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